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DEPARTMENT OF COMMERCE AND LABOR.

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# BULLETIN

OF THE

# BUREAU OF LABOR.

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III

ALL MY DREAMS

WANT TO BE

# BULLETIN

OF THE

# BUREAU OF LABOR.

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No. 51.

WASHINGTON.

MARCH, 1904.

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## COURSE OF WHOLESALE PRICES, 1890 TO 1903.

In Bulletin No. 39, the issue for March, 1902, data relating to wholesale prices for the period from 1890 to 1901 were presented, and in Bulletin No. 45, the issue for March, 1903, this compilation was continued for the year 1902. In this Bulletin are presented the actual prices for 1903, and the relative prices for the fourteen years from 1890 to 1903.

As was explained in Bulletin No. 45, changes in the actual prices of single commodities may readily be seen by the inspection of a series of quotations covering a number of years, but in order to ascertain the changes in the general price level from year to year, the quotations for a number of commodities of a more or less dissimilar character must be examined and in some manner combined. The method quite generally adopted for this purpose by statisticians and economists is the use of what is commonly known as the index number or relative price.

Before proceeding to the discussion of the data which enter into the present record, it seems desirable to define the index number or relative price, and explain the various methods adopted in securing the same.

Briefly, an index number or relative price of any given article at any given date is the percentage which the price of that article at that date is of the price of the same article at a date or a period which has been selected as a base or standard. This base or standard varies in the different series of index numbers which have been presented to the public. In the London Economist's index numbers the average price for the years 1845 to 1850, inclusive, is taken as the base; in those calculated by Mr. Sauerbeck, and published in the Journal of the Royal



Statistical Society, the average for the eleven years 1867 to 1877 is taken; in Doctor Soetbeer's index numbers the average for the four years 1847 to 1850 is used, while in the United States Senate Finance Committee's statement of relative prices (Senate Report No. 1394, Fifty-second Congress, second session) the price for the year 1860 is taken as the base or standard. In order to secure the index number or relative price for any article at any date in the period covered, the price of the article for that date is divided by the price at the date or by the average price for the period selected as the base. The quotient obtained multiplied by 100 is the per cent that the price at that date is of the base or standard price, and is called the index number or relative price. For example, the percentage for flour in 1885 in Mr. Sauerbeck's series of index numbers is 63, meaning that the average price of flour in 1885 was 63 per cent of the average price of the same article during the base period (1867 to 1877). This base being always 100, a fall of 37 per cent is indicated.

These percentages having been made in the case of each separate article included in the particular scheme under consideration, and for each year of the period covered, a series of total index numbers or relative prices for each of the years covered is usually constructed by adding together the index numbers of all the articles for each year and dividing the result by the number of articles considered, thus securing an average of the same. This course has been followed by Sauerbeck, Soetbeer, the United States Senate Finance Committee, and some others. In the case of the London Economist index numbers, however, simply the sum of the index numbers of the individual articles is used. For example, the total of the index numbers for the base period (1845 to 1850) is 2,200, or the sum of the base figures (100) for the 22 articles considered, and the total of the percentages for 1873 is 2,947. These sums, however, may be readily reduced to the average form given in other series of index numbers by dividing each by 22, the number of articles considered. It will be seen, then, that the index numbers or relative prices for all the commodities combined do not represent averages of the actual prices of such dissimilar commodities as a loaf of bread, a pound of meat, a ton of pig iron, etc., but are averages of the index numbers or relative prices of the articles.

In the Bulletin for March, 1902 (No. 39), a history of the principal price indexes—those published by the London Economist, Palgrave, Sauerbeck, Soetbeer, the United States Senate Finance Committee, Commons, and Dun—was presented and need not be repeated here.

In the record of prices for the fourteen years from 1890 to 1903 published by the Bureau of Labor 250 series of quotations were secured for the entire period and an additional 11 for some portion of the period. No quotations are shown for imported tin plate since 1898, which leaves 260 series of quotations for the years 1899 to 1903.



Although in the case of commodities of great importance more than one series of quotations have been used, in no case has an article of a particular description been represented by more than one series of quotations. For this reason the terms "series of quotations" and "commodities" have been used interchangeably in the pages which follow. The actual prices from which the index numbers or relative prices, 1890 to 1901, were computed were shown in Table I, Bulletin 39, in detail; those from which the relative prices for 1902 were computed were shown in detail in Table I, Bulletin 45, and those from which the relative prices for 1903 were computed are shown in detail in Table I in this Bulletin. In securing these prices the effort has been made to include staple commodities only. In a number of instances it was found possible to secure prices for the same commodities that were included in the Report on Wholesale Prices, Wages, and Transportation submitted by Mr. Aldrich from the Senate Committee on Finance March 3, 1893. Many articles which were included in that report are no longer manufactured, or, if still manufactured, have ceased to be important factors in the market. On the other hand, a number of articles not shown in that report have become of such importance as to render necessary their inclusion in any study of the course of prices.

The commodities covered in 1903 by the 260 series of quotations have been classified under 9 general groups, as follows:

Farm products, 16 series of quotations.

Food, etc., 54 series of quotations.

Cloths and clothing, 76 series of quotations.

Fuel and lighting, 13 series of quotations.

Metals and implements, 38 series of quotations.

Lumber and building materials, 27 series of quotations.

Drugs and chemicals, 9 series of quotations.

House furnishing goods, 14 series of quotations.

Miscellaneous, 13 series of quotations.

The further description of the kind of prices quoted, the source of these quotations, the market for which they were secured, their frequency, etc., will be taken up in connection with the discussion of Table I, which follows:

*Table I.—Wholesale prices of commodities in 1903, pages 270 to 319.*—This table shows in detail the actual prices from which the subsequent tables of index numbers are calculated. As stated previously, the 260 series of quotations have been classified under 9 groups of commodities, and this grouping has been uniformly adhered to in the several tables which are given.

The prices quoted in every instance are wholesale prices. Wholesale prices have invariably been used in compilations which have been made for the purpose of showing changes in the general price level. They are more sensitive than retail prices and more quickly reflect



changes in conditions. Retail prices usually follow the wholesale, but not generally in the same proportion. The margin between them in the case of some commodities is so great that slight changes in the wholesale price do not affect the retail. Changes in the wholesale price which last for a short time only do not usually result in corresponding changes in the retail price.

The net cash prices are shown for textiles and all articles whose list prices are subject to large and varying discounts. In the case of a number of articles, such as white pine, nails, etc., however, whose prices are subject to a small discount for cash no deduction has been made.

The prices have been collected from the best available sources, such as standard trade journals, officials of boards of trade, chambers of commerce, and produce exchanges, and leading manufacturers or their selling agents.

The prices quoted are usually the prices in the New York market, except for such articles as have their primary market in some other locality. For grains, livestock, etc., for example, Chicago prices are quoted; for fish, except salmon, Boston prices; for tar, Wilmington, N. C., prices; for white pine, Buffalo prices; for Elgin creamery butter, Elgin, Ill., prices, etc. The prices for textiles are the prices in the general distributing markets, such as New York, Boston, and Philadelphia; and where no market is mentioned in the prefatory note to Table I, it should be understood that the prices are for the general market.

The following table shows the different markets and the number of articles quoted for each market:

NUMBER OF COMMODITIES OR SERIES OF QUOTATIONS IN 1903, CLASSIFIED BY MARKETS FOR WHICH SECURED.

Market.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and implements.	Lumber and building materials.	Drugs and chemicals.	House furnishing goods.	Miscellaneous.	Total.
New York .....	2	44	2	9	21	21	9	6	12	126
Chicago .....	14	5			1					20
Factory, mine, wells, etc. ....				3	1	1		3		8
Pittsburg .....					7					7
Buffalo .....						4				4
Philadelphia .....					4					4
Boston .....		3								3
Trenton, N. J. ....								3		3
Cincinnati .....				1	1					2
Eastern markets (Balt., Boston, N. Y., Phila.) ..			2							2
Elgin, Ill. ....		1								1
Lasalle, Ill. ....					1					1
Peoria, Ill. ....									1	1
Washington, D. C. ....		1								1
Wilmington, N. C. ....						1				1
General market .....			72		2			2		76
Total .....	16	54	76	13	38	27	9	14	13	260

As regards the description of the commodity, it should be stated that the greatest care has been taken to secure prices throughout the

period for a commodity of precisely the same description. Changes in quality are, of course, reflected in prices, and for this reason note has been made of any important changes which have occurred. In the case of certain commodities, such as butter, eggs, etc., prices for the best quality have invariably been taken, in order to avoid frequent changes in grade. It should also be stated in this connection that in the case of commodities for which prices were secured from the Oil, Paint, and Drug Reporter the lowest quotations were invariably taken where a range of prices was found because of the fact that these represent the prices of large lots, while the high quotations represent the prices of smaller lots.

Weekly quotations have been secured in the case of all articles which are subject to frequent fluctuations in price, such as butter, cheese, eggs, grain, live stock, meats, etc. In the case of articles whose prices are more stable, monthly or annual quotations have been taken. The following table shows the number of series of weekly, monthly, and annual price quotations:

NUMBER OF COMMODITIES OR SERIES OF QUOTATIONS, CLASSIFIED AS TO THEIR FREQUENCY OF QUOTATION IN 1903.

Frequency of quotation.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and implements.	Lumber and building materials.	Drugs and chemicals.	House furnishing goods.	Miscellaneous.	Total.
Weekly.....	13	22	1	1	.....	.....	.....	.....	1	38
Monthly.....	3	32	64	12	38	27	9	14	12	211
Annually.....	.....	.....	11	.....	.....	.....	.....	.....	.....	11
Total.....	16	54	76	13	38	27	9	14	13	260

The character of each series of quotations as regards frequency is shown in all cases in Table I in a prefatory note which states fully the date of the quotations and, if weekly, whether the quotations are for some particular day of the week, the average for the week, or the range for the week. The majority of the weekly quotations show the price on Tuesday, and if for any reason Tuesday's price was not obtainable, the first price in the week has been taken. The quotations from trade and other journals, when credited to the first of each month, are not in all instances the price for the exact day stated, as it is a common practice of the daily papers which make a specialty of market reports to devote certain days to the review of the market of certain articles. For example, the Boston Herald quotes fish on Saturday only. The prices are, however, the earliest prices quoted in the journal to which the article is credited. It should also be stated that the monthly prices credited to weekly publications are the earliest quotations shown in such publications for each month.

The average price for the year was obtained by dividing the sum of the quotations for a given commodity by the number of quotations shown. For example, the sum of the Tuesdays' prices of cotton for



1903 (shown in Table I) was \$5.8420, and the number of quotations 52. The former figure divided by the latter gives \$0.11235 as the average price for the year. Where a range was shown the mean price for each date was found, and this was used in computing the yearly average. The average yearly price of all articles was computed as above described. The reader will understand that, in order to secure for any commodity a strictly scientific average price for the year, one must know the quantity marketed and the price for which each unit of quantity was sold. It is manifestly impossible to secure such detail, and even were it possible the work of compilation would be much greater than the results would justify. It is believed that the method adopted here, which is also that used in the construction of other index numbers, secures results which are quite as valuable for all practical purposes.

An examination of Table I in the present Bulletin, in connection with Table I in Bulletin Nos. 39 and 45, shows that the prices of some of the commodities included in these index numbers were subject to frequent and decided fluctuations, while the prices of others were almost, and in two cases altogether, uniform throughout the period. The following table shows the lowest and highest quotations and the dates of the same for each of the commodities during the fourteen-year period:

LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903.

[For a more detailed description of the articles see Table I, page 270 et seq.]

FARM PRODUCTS.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Barley: by sample.....	3d week Aug 1896	\$0.18 $\frac{1}{4}$ - \$0.35	4th week Oct 1890.	\$0.58 - \$0.81	Bushel
Cattle: steers, choice to extra.	4th week Apr 1896.	3.85 - 4.25	3d, 4th Tues Aug, 1st Tues Sept 1902.	7.60 - 9.00	100 lbs
Cattle: steers, good to choice.	2d Tues Jan 1890	3.00 - 3.90	2d, 3d, 4th Tues Aug, 1st, 2d Tues Sept 1902.	6.70 - 7.60	100 lbs
Corn: No. 2, cash.....	2d Tues Sept 1896	.19 $\frac{1}{2}$ - .20	5th Tues May 1892.	.48 $\frac{1}{2}$ - 1.00	Bushel
Cotton: upland, middling..	1st Tues Feb, 1st, 2d Tues Nov 1898.	.05 $\frac{5}{16}$	5th Tues Dec 1903.	.1370	Pound
Flaxseed: No. 1 .....	Sept 1896.....	.63 $\frac{1}{2}$ - .64	July 1901.....	1.88	Bushel
Hay: timothy, No. 1.....	3d, 4th Tues July 1898.	6.50 - 8.00	3d Tues Apr 1891	15.50 - 16.50	Ton
Hides: green, salted, packers, heavy native steers.	June 1894 .....	.0500 - .0513	Sept 1902.....	.1491	Pound
Hogs: heavy .....	4th Tues July 1896.	2.50 - 3.15	2d Tues Feb 1893	8.10 - 8.65	100 lbs
Hogs: light.....	3d Tues Sept 1896	2.80 - 3.35	2d Tues Feb 1893	7.90 - 8.25	100 lbs
Hops: N. Y. State, choice ..	Sept 1895.....	.06 - .07	Nov 1890.....	.45 - .47	Pound
Oats: cash.....	2d Tues Sept 1896	.14 $\frac{3}{4}$	4th Tues July 1902	.63 $\frac{1}{2}$ - .64	Bushel
Rye: No. 2, cash.....	5th Tues June 1896.	.28 $\frac{1}{2}$	3d Tues Aug 1891	.97 - 1.00	Bushel
Sheep: native .....	5th Tues Oct 1894	.75 - 3.25	4th Tues Mar 1903.	4.50 - 7.00	100 lbs
Sheep: Western .....	5th Tues Aug 1893.	1.00 - 3.00	5th Tues Mar 1903.	3.50 - 7.00	100 lbs
Wheat: contract grades, cash.	5th Tues Jan 1895	.48 $\frac{7}{8}$ - .49 $\frac{1}{2}$	2d Tues May 1898	1.73 - 1.85	Bushel



## LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## FOOD, ETC.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Beans: medium, choice ....	Apr 1897 .....	\$0.85	Sept 1901.....	\$2.75	Bushel
Bread: crackers, Boston X.	May, June 1897.	.05	June 1898, July 1900 to July 1903.	.08	Pound
Bread: crackers, soda .....	May to Dec 1897.	.05½	June 1898.....	.08½	Pound
Bread: loaf (Wash. market)	May to July 1895	.03	Aug 1896.....	.05	Loaf
Bread: loaf, homemade (N. Y. market).	Jan to May 1896.	.03	Jan 1890 to Dec 1895, June 1896 to Dec 1903.	.04	Loaf
Bread: loaf, Vienna (N. Y. market).	Jan to May 1896.	.03	Jan 1890 to Dec 1895, June 1896 to Dec 1903.	.04	Loaf
Butter: creamery, Elgin (Elgin market).	1st Mon June 1890.	\$0.13½ - .14	1st Mon Mar 1891.	\$0.34 - .35½	Pound
Butter: creamery, extra (N. Y. market).	2d Tues June 1890.	.13½ - .14	2d Tues Mar 1891.	.35 - .36½	Pound
Butter: dairy, N. Y. State ..	3d Tues Apr 1896	.13 - .13½	2d Tues Mar 1891.	.33	Pound
Cheese: N. Y. State, full cream.	3d Tues May 1895	.06 - .06½	4th Tues Mar to 4th Tues Apr 1903.	.14½ - .14¾	Pound
Coffee: Rio No. 7 .....	May, June, Aug, Sept 1903.	.05½ - .05¾	Oct 1890.....	.18½ - .19	Pound
Eggs: new-laid, fancy, near-by.	1st Tues Apr 1897	.10½ - .10¾	4th, 5th Tues Dec 1903.	.36 - .45	Dozen
Fish: cod, dry, bank, large.	Mar to Sept 1896, Aug 1897.	4.00 - 4.25	Feb, Mar 1892...	7.75 - 8.00	Quintal
Fish: herring, shore, round.	May to Aug 1892.	2.00 - 2.25	Dec 1902 to Sept 1903.	5.75 - 6.00	Barrel
Fish: mackerel, salt, large No. 3s.	June 1897 .....	8.00 - 9.00	Sept, Oct 1890...	20.00	Barrel
Fish: salmon, canned .....	Apr 1898 .....	1.10 - 1.30	Mar 1890.....	1.75 - 2.00	12 cans
Flour: buckwheat.....	Apr 1897 .....	1.00 - 1.15	Sept 1891.....	3.50 - 3.65	100 lbs
Flour: rye.....	July 1897.....	2.00 - 2.40	Nov 1891.....	5.15 - 5.90	Barrel
Flour: wheat, spring pat- ents.	1st Tues Nov 1894	3.15 - 3.40	2d Tues May 1898.	7.00 - 7.75	Barrel
Flour: wheat, winter straights.	2d Tues Oct to 1st Tues Nov 1894.	2.40 - 2.65	2d Tues May 1898.	6.25 - 6.75	Barrel
Fruit: apples, evaporated, choice.	Apr 1897.....	.03½ - .03¾	Feb 1891 .....	.14½ - .15½	Pound
Fruit: apples, sun-dried, Southern, sliced.	May 1897.....	.01½ - .02½	May 1891.....	.11 - .13	Pound
Fruit: currants, in barrels..	Apr, May 1894 ..	.01½ - .01¾	Oct 1900.....	.12 - .12½	Pound
Fruit: prunes, California, in boxes.	June 1897.....	.04 - .04½	Oct 1890.....	.12½ - .13	Pound
Fruit: raisins, California, London layer.	Apr 1896 .....	.80 - .90	Jan 1890 .....	2.25 - 2.75	Box
Glucose: 41° and 42° mixing.	June 1897.....	.92½	June 1902.....	2.32	100 lbs
Lard: prime contract.....	4th Tues July 1896.	.0340	3d Tues Feb 1893.	.1315	Pound
Meal: corn, fine white.....	Sept 1896.....	.63 - .65	May 1891.....	1.69	100 lbs
Meal: corn, fine yellow.....	Sept 1896.....	.62 - .63	May 1891.....	1.67 - 1.68	100 lbs
Meat: bacon, short clear sides.	4th Tues July, 1st Tues Aug 1896.	.04 - .04½	3d, 4th Tues Oct 1902.	.12½ - .12¾	Pound
Meat: bacon, short rib sides.	4th Tues July, 1st Tues Aug, all Sept 1896.	.03¾ - .04	4th Tues May 1893, 3d, 4th Tues Oct 1902.	.12 - .12½	Pound
Meat: beef, fresh, native sides.	4th Tues Mar 1894.	.05 - .07	2d, 3d, 4th, 5th Tues July 1902.	.09 - .12½	Pound
Meat: beef, salt, extra mess.	2d, 3d, 4th weeks Aug 1892.	6.00 - 6.50	3d week May to 2d week June 1902.	14.00	Barrel
Meat: beef, salt, hams, Western.	4th Tues Oct 1890, 2d Tues Nov 1891, 3d Tues Oct 1892.	12.00 - 12.50	1st Tues Aug 1899.	27.50 - 29.00	Barrel
Meat: hams, smoked.....	3d, 4th Tues Sept, 1st Tues Oct 1898.	.07¼ - .07½	4th, 5th Tues Jan 1893.	.15 - .16	Pound
Meat: mutton, dressed .....	5th Tues Oct 1895.	.03 - .06	1st, 2d Tues May 1891, 4th Tues May 1892.	.10½ - .12	Pound
Meat: pork, salt, mess, old to new.	4th Tues July, 3d Tues Sept 1896.	7.50 - 8.00	5th Tues May 1893.	21.50 - 22.50	Barrel
Milk: fresh.....	June 1897, June 1898.	.0175	Dec 1902 .....	.0375	Quart

LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

FOOD, ETC.—Concluded.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Molasses: New Orleans, open kettle, prime.	June, July 1897.	\$0.23 - \$0.24	Jan to July 1900.	\$0.44 - \$0.55	Gallon
Rice: domestic, choice .....	May, July, Aug, Sept 1893.	.04 - .04½	Aug to Nov 1891	.06½ - .07	Pound
Salt: American.....	3d week Aug 1896 to 3d week Feb 1897, 1st, 2d, 3d weeks Oct 1898, 1st week May to 5th week Sept 1899, 1st week June to 2d week July 1903.	.55	1st week Nov 1900 to 1st week Apr 1901.	1.15	Barrel
Salt: Ashton's .....	Oet 1894 to Mar 1901.	2.00 - 2.10	Jan to July 1890	2.45 - 2.50	Bushel
Soda: bicarbonate of, American.	Oct, Nov 1901, June to Aug 1902.	.0095	Apr 1890, Mar to June 1891.	.0350	Pound
Spices: nutmegs.....	Aug to Oct 1902.	.18½ - .19½	Mar 1890.....	.64 - .65	Pound
Spices: pepper, Singapore..	Feb 1895, Jan, Feb 1896.	.04½ - .04½	Nov 1900.....	.13½ - .13½	Pound
Starch: pure corn .....	July 1901 .....	.04	Nov, Dee 1890...	.06½	Pound
Sugar: 89° fair refining.....	4th Thurs Apr, 1st Thurs May 1894.	.02310	1st, 2d Thurs Sept, 2d, 3d, 4th Thurs Oct 1890.	.05311	Pound
Sugar: 96° centrifugal.....	1st Thurs Jan, 3d Thurs Apr, 4th Thurs May 1894.	.02750	1st, 2d Thurs Sept 1890.	.05921	Pound
Sugar: granulated.....	1st, 2d Thurs Feb 1895.	.03680	1st Thurs June 1890.	.06615-.06676	Pound
Tallow .....	4th Tues May 1897.	.02½ - .03	3d Tues Feb 1893	.08½	Pound
Tea: Formosa, fine.....	Oet 1903 .....	.20 - .21	Sept 1890.....	.33 - .35	Pound
Vegetables, fresh: onions ..	May 1896 .....	.50 - 1.00	Feb 1890 .....	5.00 -10.00	Barrel
Vegetables, fresh: potatoes, Burbank.	3d week May, 3d, 4th weeks June 1896.	.10 - .15	2d week June 1891.	1.10 - 1.35	Bushel
Vinegar: eider, Monarch...	Oet 1895 to Sept 1898, July 1900 to Sept 1901, Nov 1902 to Dee 1903.	.13	Nov 1890 to May 1892.	.18	Gallon

CLOTHS AND CLOTHING.

Bags: 2 bushel, Amoskeag..	Jan to Mar 1895.	\$0.10½	Jan 1900 .....	\$0.16½	Bag
Blankets: 11-4, 5 lbs. to the pair, all wool.	1895 to 1897 .....	.75	1903.....	.92½	Pound
Blankets: 11-4, 5 lbs. to the pair, cotton warp, all wool filling.	1895.....	.54	1900.....	.75	Pound
Blankets: 11-4, 5 lbs. to the pair, cotton warp, cotton and wool filling.	1895, 1896.....	.40	1900.....	.52½	Pound
Boots and shoes: men's brogans, split.	Jan to June 1898.	.90	Jan 1890 to June 1892, July to Sept 1895.	1.05	Pair
Boots and shoes: men's calf bal. shoes, Goodyear welt, dongola top.	July 1898 to Dec 1900.	2.24	Jan 1890 to June 1898.	2.40	Pair
Boots and shoes: men's split boots, kip top, 16-in., ½ double sole. (a)	Jan to Dee 1895.	15.00	Oct to Dee 1901..	19.00	12 pairs
Boots and shoes: men's vici kid shoes, Goodyear welt.	Jan 1897 to Dee 1903.	2.00	Jan 1890 to Dee 1894.	2.50	Pair
Boots and shoes: women's solid grain shoes, leather, polish or polka.	Jan 1893 to Dee 1894.	.75	Jan to July 1900	.925	Pair
Broadcloths: first quality, black, 54-in., made from XXX wool.	Jan 1895 to Dee 1896.	1.38	Jan 1890 to Dee 1893.	1.97	Yard

<sup>a</sup>In 1903, russet bound top, 17-inch, ½ double sole.



## LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## CLOTHS AND CLOTHING—Continued.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Calico: Cocheco prints.....	Jan 1898 to June 1899.	\$0.045	Jan to Dec 1890, Jan 1892 to June 1893.	\$0.065	Yard
Carpets: Brussels, 5-frame, Bigelow.	Jan 1894 to June 1897.	.936	Jan 1891 to Mar 1892.	1.128	Yard
Carpets: ingrain, 2-ply, Lowell.	July 1895 to June 1897.	.408	Jan to Dec 1891.	.552	Yard
Carpets: Wilton, 5-frame, Bigelow.	Jan 1895 to June 1897.	1.680	May to Dec 1903.	2.040	Yard
Cotton flannels: 2½ yds. to the pound.	Jan 1897 to Dec 1898.	.05½	Jan 1890 to Dec 1891.	.08½	Yard
Cotton flannels: 3½ yds. to the pound.	Jan to Dec 1898	.04½	Jan 1890 to Dec 1891, Dec 1903.	.06⅞	Yard
Cotton thread: 6-cord, 200-yd. spools, J. & P. Coats.	July 1896 to Dec 1899.	.030503	Jan 1900 to Dec 1903.	.037240	Spool
Cotton yarns: carded, white, mule-spun, Northern, cones, 10/1.	Dec 1898 to June 1899.	.13¼	Aug 1903.....	.21	Pound
Cotton yarns: carded, white, mule-spun, Northern, cones, 22/1.	Dec 1898 to Mar 1899.	.16½	July 1892 .....	.24	Pound
Denims: Amoskeag ... ..	Jan to Mar 1899.	.08¼	Oct to Dec 1890, July to Dec 1893, Nov, Dec 1903.	.12	Yard
Drillings: brown, Pepperell.	Nov 1898 to Jan 1899.	.04½	Aug, Sept, Nov, Dec 1890, Feb, Mar 1891.	.07	Yard
Drillings: 30-in., Stark A...	Feb 1898 .....	.0410	Aug 1890.	.0675	Yard
Flannels: white, 4-4, Ballard Vale No. 3.	Aug, Sept 1896 ..	.29	July to Dec 1903.	.44½	Yard
Ginghams: Amoskeag.....	Apr to June 1895, July to Sept 1896, Apr to Sept 1897, Jan to Mar, July to Dec 1898.	.0425	Jan 1891 to Mar 1893.	.0650	Yard
Ginghams: Lancaster .....	Feb to May 1895, June to Aug 1896.	.04½	May 1890 to Mar 1893.	.07	Yard
Horse blankets: 6 lbs. each, all wool.	1896.....	.52	1900.....	.68	Pound
Hosiery: men's cotton half hose, seamless, fast black, 20 to 22 oz., 160 needles.	1901.....	.6860	1890.....	1.2740	12 pairs
Hosiery: men's cotton half hose, seamless, standard quality, 84 needles.	1899.....	.62½	1890, 1891 .....	.97½	12 pairs
Hosiery: women's combed Egyptian cotton hose, high spliced heel, double sole, full-fashioned.	1899.....	1.75	1901.....	2.00	12 pairs
Hosiery: women's cotton hose, seamless, fast black, 26 to 28 oz., 160 to 176 needles.	1901.....	.6615	1890.....	1.2250	12 pairs
Leather: harness, oak, country middles, 14 lbs. and up (except overweights, 20 lbs. and up). <sup>a</sup>	Aug, Sept 1894..	\$0.20 - .22	July to Nov 1895, Nov 1899 to Mar 1900.	\$0.32 - .34	Pound
Leather: harness, oak, packers' hides, heavy, No. 1. (b)	Sept 1902 .....	.32	Aug 1903.....	.31 - .39	Pound
Leather: sole, hemlock, nonacid, Buenos Ayres, middle weights, 1st quality.	May 1892.....	.16	Apr, May 1900 ..	.26 - .27	Pound
Leather: sole, oak.....	Sept to Nov 1896, June 1897.	.28 - .29	Mar 1903.....	.39 - .40	Pound
Leather: wax calf, 30 to 40 lbs. to the doz., B grade.	Jan to June 1890, Feb, June 1891, Aug 1894 to Jan 1895, Sept, Oct 1896, Apr, June 1897.	.55 - .60	July to Nov 1895.	.80 - .85	Sq foot
Linen shoe thread: 10s, Barbour.	Jan to Dec 1903.	\$0.8460	Nov 1893 to Sept 1894.	\$0.9405	Pound

<sup>a</sup>Quotations for 1890 to 1901.<sup>b</sup>Quotations for 1902 and 1903.

## LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## CLOTHS AND CLOTHING—Continued.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Linen thread: 3-cord, 200-yard spools, Barbour.	Apr to Dec 1891.	\$0.7623	Jan 1890 to Mar 1891, Aug 1897 to Dec 1902.	\$0.8910	12spools
Overcoatings: beaver, Moscow, all wool, black.	1895 to 1897 .....	1.7670	1900.....	2.4994	Yard
Overcoatings: chinchilla, B-rough, all wool.	1895 to 1897 .....	1.8774	1900.....	2.4994	Yard
Overcoatings: chinchilla, cotton warp, C. C. grade.	Nov 1896.....	.41	Oct 1892, June, Sept 1893.	.55	Yard
Overcoatings: covert cloth, light weight, staple goods.	1897.....	1.9458	1890 to 1893 .....	2.4616	Yard
Overcoatings: kersey, standard, 27 to 28 oz.	Jan to May 1897.	1.00	Jan to Dec 1900, Jan to Dec 1903.	1.575	Yard
Print cloths: 28-in., 64x64...	2d week May 1898.	.01875	2d week Dec 1892.	.04063	Yard
Shawls: standard, all wool, 72x144 in., 42-oz., made of high-grade wool.	Jan 1896 to Nov 1897, Apr 1898 to Dec 1899.	4.08	Jan 1890 to Dec 1895, Jan 1900 to Dec 1903.	4.90	Each
Sheetings: bleached, 10-4, Atlantic.	Nov 1898.....	.1402	May 1900 .....	.2359	Yard
Sheetings: bleached, 10-4, Pepperell.	Apr, May 1895 ..	.15½	Mar to June 1900.	.25	Yard
Sheetings: bleached, 10-4, Wamsutta S. T.	Apr 1894 to Nov 1895.	.27	Oct 1890 to Jan 1891.	.3290	Yard
Sheetings: brown, 4-4, Atlantic A.	Dec 1898 .....	.0421	Oct 1890.....	.0684	Yard
Sheetings: brown, 4-4, Indian Head.	June 1898, Jan 1899.	.05	Dec 1903 .....	.07½	Yard
Sheetings: brown, 4-4, Massachusetts Mills, Flying Horse brand.(a)	Apr to Dec 1902	.05½	Dec 1903 .....	.06¾	Yard
Sheetings: brown, 4-4, Pepperell R.	Apr, Nov, Dec 1898.	.0450	Aug 1890.....	.0675	Yard
Sheetings: brown, 4-4, Stark A. A.(b)	Nov 1898.....	.0396	July 1890 .....	.0684	Yard
Shirtings: bleached, 4-4, Fruit of the Loom.	Dec 1898 .....	.0538	June 1890 to Jan 1891, Jan to June 1893.	.0855	Yard
Shirtings: bleached, 4-4, Hope.	Dec 1898 .....	.0475	June 1890 to Jan 1891.	.0736	Yard
Shirtings: bleached, 4-4, Lonsdale.	Dec 1898 .....	.0523	June 1890 to Jan 1891, Dec 1892 to June 1893.	.0855	Yard
Shirtings: bleached, 4-4, N. Y. Mills.	Mar to Nov 1899.	.0711	May 1890 to June 1891.	.0976	Yard
Shirtings: bleached, 4-4, Wamsutta <sup>&lt;o&gt;</sup> <sub>x x</sub>	Dec 1897 to Jan 1899,	.0807	June 1890 to June 1891, Apr to July 1893.	.1021	Yard
Silk: raw, Italian, classical.	June 1894 .....	\$3.4328-3.4825	Apr, May 1893 ..	\$5.7213-5.8456	Pound
Silk: raw, Japan, filatures..	Aug 1896.....	2.9100-3.3950	Feb 1890, Dec 1899.	5.3350-5.5775	Pound
Suitings: clay worsted diagonal, 12-oz., Washington Mills.	Feb to Apr 1897.	.6370	Nov 1899.....	1.2012	Yard
Suitings: clay worsted diagonal, 16-oz., Washington Mills.	Feb to Apr 1897.	.7963	Jan 1900 .....	1.4625	Yard
Suitings: indigo blue, all wool, 54-inch, 14-oz., Middlesex standard.	Jan to Dec 1897.	1.0465	Jan 1890 to June 1893.	1.5470	Yard
Suitings: indigo blue, all wool, 16-oz.	1895.....	1.5903	1900.....	2.2669	Yard
Suitings: serge, Washington Mills 6700.	Jan 1896 to Aug 1897.	.6143	Oct, Nov 1899...	.9328	Yard
Tickings: Amoskeag A. C. A.	Oct to Dec 1898.	.08½	Oct to Dec 1890.	.12¼	Yard
Trouserings: fancy worsted, 22 to 23 oz.(c)	Jan to Dec 1895.	1.7100	Jan to Dec 1900.	2.2871	Yard
Underwear: shirts and drawers, white, all wool, full-fashioned, 18-gauge.	Jan 1894 to Dec 1898.	21.6000	Jan 1891 to Dec 1893.	25.6500	12 garments
Underwear: shirts and drawers, white, merino, full-fashioned, 52% wool, 48% cotton, 24-gauge.(d)	Jan to Dec 1899.	13.5000	Jan 1891 to Dec 1893.	17.5500	12 garments

<sup>a</sup> Quotations for 1902 and 1903.<sup>b</sup> Quotations for 1890 to 1901.<sup>c</sup> In 1903, 21 to 22 ounce.<sup>d</sup> Quotations for 1890 to 1902.



## LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## CLOTHS AND CLOTHING—Concluded.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Underwear: shirts and drawers, white, merino, full-fashioned, 60% wool, 40% cotton, 24-gauge. (a)	Uniform during year.	\$16.20	Uniform during year.	\$16.20	12 garments
Women's dress goods: alpaca, cotton warp, 22-in., Hamilton.	Jan 1895 to July 1899.	.0637	Jan 1890 to June 1892.	.0735	Yard
Women's dress goods: cashmere, all wool, 10-11 twill, 38-in., Atlantic Mills J.	Jan to Dec 1896	.1960	Apr 1891 to Dec 1892, June to Aug 1900.	.3724	Yard
Women's dress goods: cashmere, cotton warp, 9-twill, 4-4, Atlantic Mills F.	Oct 1895 to May 1896.	.1127	Jan 1890 to Dec 1891, July to Dec 1892.	.1813	Yard
Women's dress goods: cashmere, cotton warp, 22-in., Hamilton.	July 1896 to July 1899.	.0686	Jan 1890 to June 1892.	.0833	Yard
Women's dress goods: cashmere, cotton warp, 27-in., Hamilton.	Oct 1896 to Mar 1899.	.0784	Jan 1890 to June 1892.	.0980	Yard
Women's dress goods: Franklin sackings, 6-4.	July 1896 to July 1897.	.40 $\frac{3}{4}$	June to Sept 1900.	.66 $\frac{1}{2}$	Yard
Wool: Ohio, fine fleece (X and XX grade), scoured.	June 1895 .....	.3478	Dec 1899 to Feb 1900.	.7609	Pound
Wool: Ohio, medium fleece ( $\frac{1}{4}$ and $\frac{3}{8}$ grade), scoured.	June 1895, June to Sept 1896.	.2903	June, July, Aug, Nov 1890.	.6210	Pound
Worsted yarns: 2-40s, Australian fine.	Nov 1895 to Mar 1896, Oct to Dec 1896.	.7200	Nov 1899 to Apr 1900.	1.3000	Pound
Worsted yarns: 2-40s, XXX or its equivalent in quality, white, in skeins. (b)	Oct 1896 to Feb 1897.	.7000	Jan, Feb 1900....	1.3500	Pound

## FUEL AND LIGHTING.

Candles: adamantine, 6s, 14-oz.	June 1897 to Jan 1900.	\$0.06 $\frac{1}{2}$	Feb 1900 to June 1903.	\$0.11	Pound
Coal: anthracite, broken...	June 1899 to Aug 1899.	3.111	Aug 1903.....	4.4744	Ton
Coal: anthracite, chestnut..	Sept 1895 .....	2.701	Mar 1903.....	4.952	Ton
Coal: anthracite, egg.....	Sept 1895 .....	2.827	Nov, Dec 1902, Jan to Mar, Sept to Dec 1903.	4.950	Ton
Coal: anthracite, stove.....	Aug 1895 .....	2.891	Nov 1903.....	4.951	Ton
Coal: bituminous, Georges Creek (at mine).	Apr to July 1894, Jan to June 1895, Jan to Mar 1896.	.75	Oct 1902 .....	5.00	Ton
Coal: bituminous, Georges Creek (f. o. b. N. Y. Harbor).	Apr 1898 to Mar 1899.	2.10	Oct 1902.....	8.25	Ton
Coal: bituminous, Pittsburgh (Youghiogheny).	2d Tues Mar to 1st Tues Apr 1899.	\$0.04 $\frac{1}{2}$ -.04 $\frac{3}{4}$	3d, 4th Tues Nov 1891.	.11	Bushel
Coke: Connellsville, furnace.	Apr, May 1894..	.92	Mar, Apr 1900...	\$3.25-4.25	Ton
Matches: parlor, domestic..	Sept 1894 to Mar 1895, May 1902 to Dec 1903.	1.50	Jan to Oct 1890..	2.00	144 boxes
Petroleum: crude .....	Oct 1892.....	.51 $\frac{3}{4}$	Dec 1903 .....	1.88 $\frac{3}{4}$	Barrel
Petroleum: refined, for export.	May 1893 .....	.0510	Jan to Mar 1900	.0990	Gallon
Petroleum: refined, 150° fire test, water white.	Feb, Mar 1893...	.07 $\frac{1}{2}$	Nov, Dec 1903...	.15	Gallon

<sup>a</sup>Quotations for 1903 only.<sup>b</sup>In 1902 and 1903 designated as XXXX.

## LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## METALS AND IMPLEMENTS.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Augers: extra, $\frac{3}{4}$ -in .....	Oet 1894 to Apr 1896, Feb 1899.	\$0.1333	Jan to Dec 1903.	\$0.2310	Each
Axes: M. C. O., Yankee ....	Oet 1897 to Dec 1898.	.3750	Jan 1890 to Sept 1891.	.5650	Each
Bar iron: best refined, from mill (Pittsburg market).	July 1897 .....	.0095	Oet 1899 .....	.0260	Pound
Bar iron: best refined, from store (Philadelphia market).	Nov 1894, Jan, Feb 1895.	.0120	Sept 1899 to Jan 1900.	.0250	Pound
Barb wire: galvanized ....	Aug 1897 .....	1.6500	Dec 1899 to Mar 1900.	4.1300	100 lbs
Butts: loose joint, cast, 3x3 inch.	Feb to July 1895, June 1897 to Jan 1900.	.0292	Feb to May 1900.	.0430	Pair
Chisels: extra, socket firmer, 1-inch.	Apr 1894 to Dec 1895, Dec 1896 to Nov 1898.	.1710	Jan to Dec 1903..	.2800	Each
Copper: ingot, lake .....	June 1894 .....	\$0.0890-.0900	May 1899 .....	.1925	Pound
Copper: sheet, hot-rolled (base sizes).	Jan, Apr 1896...	.13 $\frac{1}{2}$	July 1890 .....	.25	Pound
Copper wire: bare .....	July 1894 .....	.11	July, Oet 1890, Apr 1899.	.20	Pound
Doorknobs: steel, bronze plated.	Jan 1890 to Apr 1895, Mar 1896 to June 1900.	.1660	May to Dec 1902.	.2280	Pair
Files: 8-inch mill bastard ..	July 1896 to June 1897.	.77	Nov 1899 to Aug 1900.	1.10	Dozen
Hammers: Maydole No. 1 $\frac{1}{2}$ .	Jan 1890 to Nov 1895.	.3500	Jan to Dec 1903.	.4660	Each
Lead: pig .....	Sept 1896 .....	.0273-.0275	Oet 1890 .....	\$0.0538-.0540	Pound
Lead pipe .....	Nov 1896 to Jan 1897.	3.60	Oet to Dec 1890..	6.40	100 lbs
Locks: common mortise....	Jan 1898 to Apr 1902.	.0750	Sept 1895 to June 1896, May 1902 to Dec 1903.	.0900	Each
Nails: cut, 8d., fence and common.	July to Sept 1898	1.15	May to Nov 1896.	2.90	100 lbs
Nails: wire, 8d., fence and common.	Dec 1896, Aug 1897, Aug, Dec 1898.	1.35	Jan, Feb 1890 ...	3.35- 3.40	100 lbs
Pig iron: Bessemer .....	July 1897 .....	9.39	Dec 1899, Feb 1900.	25.00	Ton
Pig iron: foundry No. 1 ....	July 1898 .....	11.25	Nov 1899 to Jan 1900.	25.00	Ton
Pig iron: foundry No. 2 ....	June 1897 .....	9.40 - 9.50	Nov 1902 .....	24.00-25.00	Ton
Pig iron: gray forge, Southern, coke.	May 1897 .....	8.00	Jan 1903 .....	20.75-21.25	Ton
Planes: Bailey No. 5 .....	Mar 1895 to Dec 1899.	1.23	Jan to Dec 1903 .	1.53	Each
Quicksilver .....	Jan to Mar 1894.	.45	Oet, Nov 1890...	.79	Pound
Saws: crosscut, Disston....	Uniform during period.	1.6038	Uniform during period.	1.6038	Each
Saws: hand, Disston No. 7..	Jan 1891 to Dec 1903.	12.60	Jan to Dec 1890.	14.40	Dozen
Shovels: Ames No. 2 .....	Jan 1894 to Mar 1896.	7.45	Apr to Nov 1902.	9.61	Dozen
Silver: bar, fine .....	Jan 1903 .....	.48213	Aug 1890 .....	1.16995	Ounce
Spelter: Western .....	Feb 1895 .....	.0315-.0325	May 1899 .....	.0695-.0700	Pound
Steel billets .....	May 1897 .....	13.96	Sept, Oet 1899...	41.50	Ton
Steel rails .....	July, Nov 1898..	17.00	Jan 1890 .....	35.25	Ton
Steel sheets: black, No. 27..	May 1897 .....	.0180-.0185	Sept 1901 .....	.0375	Pound
Tin: pig .....	Oet 1896 .....	.1270	Mar 1900 .....	.3425	Pound
Tin plates: domestic, Bessemer, coke, 14x20 inch.	Apr 1898 .....	2.72 $\frac{1}{2}$ - 2.77 $\frac{1}{2}$	Dec 1899 to Sept 1900.	4.84	100 lbs
Tin plates: imported, Bessemer, coke, I. C., 14x20 inch. (a)	June to Aug 1896, Aug 1897	3.70	Apr, May 1893 ..	5.50	108 lbs
Trowels: M. C. O., brick, 10 $\frac{1}{2}$ -inch.	Uniform during period.	.34	Uniform during period.	.34	Each
Vises: solid box, 50-lb .....	July 1897 to Feb 1899.	3.28	Apr, May, Aug, Sept 1903.	5.75	Each
Wood screws: 1-in., No. 10, flat head.	Apr to Dec 1897.	.0800	Jan 1892 to Mar 1894.	.2100	Gross
Zinc: sheet .....	May 1894 .....	3.56	June 1899 .....	7.59	100 lbs

a Quotations for 1890 to 1898.



## LOWEST AND HIGHEST QUOTATIONS, 1890 to 1903—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

## LUMBER AND BUILDING MATERIALS.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Brick: common domestic ..	Sept 1894, Sept 1900.	\$4.25	Feb to Apr 1890.	\$7.50	M
Carbonate of lead: American, in oil.	Feb 1894.....	.0488	Nov 1890 to Jan 1891.	.0688	Pound
Cement: Portland, domestic.	Mar to May 1902, Oct 1903.	\$1.60- 1.90	Apr 1900 .....	\$2.20- 2.35	Barrel
Cement: Rosendale .....	Nov 1898.....	.60	Apr 1892 .....	1.20- 1.25	Barrel
Doors: pine .....	Last qr 1896, 1st 3 qrs 1897.	.80	Aug to Dec 1902.	2.25	Door
Hemlock .....	Nov 1894 to Jan 1895.	10.75-11.25	Mar to May 1900.	18.00	M feet
Lime: common.....	Sept to Dec 1896, July to Sept 1900.	.60	Jan to July, Oct to Nov 1890, Sept 1891, Sept 1892 to Apr 1893, May 1898.	1.00	Barrel
Linseed oil: raw.....	Feb, July 1897 ..	.29	July, Aug 1901..	.82	Gallon
Maple: hard.....	June to Sept 1901	24.00-27.00	June to Dec 1903.	32.00-34.00	M feet
Oak: white, plain .....	June to Aug 1901	32.00-34.00	June to Dec 1903.	45.00-48.00	M feet
Oak: white, quartered .....	Jan, Feb 1890....	47.00-48.00	Dec 1903 .....	80.00-85.00	M feet
Oxide of zinc.....	Jan to June 1895.	.0325	Jan to June 1900.	.0475	Pound
Pine: white, boards, No. 2 barn.	May 1897 to Jan 1899.	15.00-16.00	Apr 1902 to Dec 1903.	24.00	M feet
Pine: white, boards, uppers.	Jan to Nov 1890.	43.00-45.00	Oct 1902 to Dec 1903.	80.00	M feet
Pine: yellow .....	Jan to Apr 1896, June to Nov 1897.	15.50-16.00	Nov 1899 to May 1900.	21.00-23.00	M feet
Plate glass: polished, unsilvered, area 3 to 5 sq. feet.	1897.....	.20	1890.....	.53	Sq. foot
Plate glass: polished, unsilvered, area 5 to 10 sq. feet.	1897.....	.32	1890.....	.70	Sq. foot
Poplar.....	Sept 1897 to Jan 1899.	29.00-31.00	June to Dec 1903.	51.00-52.50	M feet
Putty.....	Apr to Dec 1903.	.0113	May 1902 to Mar 1903.	.0225	Pound
Resin: good, strained.....	Sept 1893 .....	1.00	Nov 1903.....	2.75- 2.80	Barrel
Shingles: cypress.....	Jan to Dec 1897..	2.35	Jan to Dec 1890..	3.35	M
Shingles: white pine, 16-inch.(a)	Jan to Mar 1902.	3.40	Apr 1902 to Dec 1903.	3.65	M
Shingles: white pine, 18-inch.(b)	Jan 1890 .....	3.40- 3.50	Apr to Dec 1901.	4.25	M
Spruce.....	July to Oct 1894.	11.50-12.50	Sept to Dec 1903.	19.50-21.50	M feet
Tar.....	Sept 1893, Dec 1893 to May 1894, Jan to Apr, June 1896, Apr 1898.	.90	Sept 1891.....	2.00	Barrel
Turpentine: spirits of .....	Aug, Sept 1896..	.24	Apr 1903 .....	.67- .67½	Gallon
Window glass: American, single, firsts, 6x8 to 10x15 inch.	May to July 1895.	1.3894	Apr 1901 .....	4.80	50sq.ft.
Window glass: American, single, thirds, 6x8 to 10x15 inch.	July, Aug 1892..	1.2113	Apr 1901 .....	3.8250	50sq.ft.

## DRUGS AND CHEMICALS.

Alcohol: grain, 94%.....	Jan to May 1890.	\$1.98	Dec 1901 .....	\$2.53	Gallon
Alcohol: wood, refined, 95%.	Sept to Dec 1903.	.50	Feb to Sept 1893.	1.40	Gallon
Alum: lump.....	Dec 1891 to Feb 1892.	.0145	Jan to June 1890.	.0188	Pound
Brimstone: crude, seconds..	Sept, Dec 1895, Feb, Mar 1896.	15.00	Apr 1891, May 1898.	35.00	Ton
Glycerin: refined.....	Aug 1894.....	.11½	Jan to Apr, June to Aug 1890.	.18	Pound
Muriatic acid: 20°.....	July 1895 to Dec 1896.	.0075	Nov 1901 to Apr 1902.	.0185	Pound
Opium: natural, in cases...	Aug 1892.....	1.50	Aug 1898.....	3.75	Pound
Quinine: American .....	Feb to July 1897.	.15	Apr 1899 .....	.40	Ounce
Sulphuric acid: 66°.....	Nov 1890 to Mar 1891, Apr to Aug, Oct, Nov 1894, Jan 1895 to Nov 1896.	.0070	Nov 1901 to Jan 1902.	.0140	Pound

a Quotations for 1902 and 1903.

b Quotations for 1890 to 1901.



LOWEST AND HIGHEST QUOTATIONS, 1890 TO 1903—Concluded.

[For a more detailed description of the articles see Table I, page 270 et seq.]

HOUSE FURNISHING GOODS.

Article.	Lowest.		Highest.		Unit.
	Date.	Price.	Date.	Price.	
Earthenware: plates, cream-colored.	July 1895 to Dec 1897.	\$0.3807	Jan to Dec 1903.	\$0.4775	Dozen
Earthenware: plates, white granite.	July 1895 to Dec 1897.	.3991	Jan 1901 to Dec 1902.	.5096	Dozen
Earthenware: teacups and saucers, white granite.	July 1895 to Dec 1897.	3.0907	Jan 1901 to Dec 1902.	3.7632	Gross
Furniture: bedroom sets, ash.	Jan 1896 to Dec 1897.	8.75	Mar to Dec 1903.	12.25	Set
Furniture: chairs, bedroom, maple.	Jan 1897 to Sept 1898.	5.00	Jan to Dec 1900, Mar to Dec 1903.	8.00	Dozen
Furniture: chairs, kitchen.	Jan to Sept 1898.	3.25	Jan to Nov 1900.	5.25	Dozen
Furniture: tables, kitchen.	Jan 1896 to June 1899.	13.80	Dec 1899 to Dec 1903.	15.60	Dozen
Glassware: nappies, 4-in....	Jan 1896 to Dec 1900.	.10	Jan 1901 to Dec 1903.	.14	Dozen
Glassware: pitchers, ½-gallon, common.	Jan 1897 to Dec 1900.	1.00	Jan 1901 to Dec 1903.	1.30	Dozen
Glassware: tumblers, ½-pint, common.	Jan to Dec 1899.	.13	Jan to Dec 1891.	.20	Dozen
Table cutlery: earvers, stag handles.	1897 to 1901, Jan 1902 to Dec 1903.	.75	1893.....	.95	Pair
Table cutlery: knives and forks, cocobolo handles.	1897.....	5.00	1890, 1891.....	7.75	Gross
Wooden ware: pails, oak-grained.	Apr 1895 to Jan 1896, Feb to May 1898.	1.10	Oet to Dec 1903..	1.70	Dozen
Wooden ware: tubs, oak-grained.	Oet 1894 to Nov 1899.	1.25	Jan 1890 to Aug 1891.	1.65	Nest of 3

MISCELLANEOUS.

Cotton-seed meal.....	Feb 1895.....	\$16.00-\$17.00	Jan 1902.....	\$33.60	2,000lbs
Cotton-seed oil: summer yellow, prime.	Nov, Dec 1897...	.21½	Feb 1893.....	.61	Gallon
Jute: raw.....	Dec 1894, Mar, Apr, May 1895.	.02¼ - .03½	Mar 1892.....	\$0.04½ - .05½	Pound
Malt: Western made.....	July 1897.....	.50 - .53	Apr to Aug 1891.	.95 -1.00	Bushel
Paper: news.....	Oct 1899.....	.0175- .0200	Jan 1890.....	.0375- .0450	Pound
Paper: wrapping, manila...	Apr 1898.....	.0375- .0400	Sept 1893.....	.0600- .0675	Pound
Proof spirits.....	1st wk Jan to 3d wk May 1890.	1.0300	1st wk Dec 1901 to 4th wk Jan 1902, 1st wk Sept to 3d wk Dec 1902.	1.3200	Gallon
Rope: manila, ¾-in (a).....	Aug, Sept 1896, Sept, Oet 1897.	.0591	Dec 1899.....	.1576	Pound
Rubber: Para Island.....	Sept 1891.....	.60 - .63	Dec 1899, Apr 1900.	1.07 -1.08	Pound
Soap: castile, mottled, pure.	May 1895 to Nov 1896, Mar 1897.	.05	Apr 1901 to Oet 1903.	.06½	Pound
Stareh: laundry.....	Aug, Sept, Oet 1896.	.0275	Aug, Sept, Dec 1902, Jan 1903.	.0500	Pound
Tobaeo: plug, Horseshoe..	July, Aug 1892, Oet 1896 to May 1897.	.36	Jan to July 1901.	.47	Pound
Tobacco: smoking, granulated, Seal of N. C.	Jan 1890 to June 1898.	.50	Oet 1902 to Dec 1903.	.57	Pound

<sup>a</sup> In 1903, 7⁄8-inch.

In a number of instances the lowest or highest price, as shown in the foregoing table, lasted for only a short time, in some cases but a few days or even a part of a day. The groups of farm products and food, etc., show the widest variations. Good to choice steers varied from \$3.00-\$3.90 on the second Tuesday of January, 1890, to \$6.70-\$7.60 on the last three Tuesdays of August and the first two Tuesdays



of September, 1902. Corn ranged from  $19\frac{1}{2}$ –20 cents the second Tuesday of September, 1896, to  $\$0.48\frac{1}{2}$ – $\$1.00$  the fifth Tuesday of May, 1892, the high price being due to an attempt to corner corn in the Chicago market. The failure of those interested in the corner to take all corn offered at the high price, however, and the rumor that they had failed, resulted in a drop from  $\$1.00$  to  $48\frac{1}{2}$  cents within a few hours. Cotton varied from  $5\frac{5}{16}$  cents on the first Tuesday of February and the first and second Tuesdays of November, 1898, to  $13\frac{7}{10}$  cents on the fifth Tuesday of December, 1903. Heavy hogs on the fourth Tuesday of July, 1896, were  $\$2.50$ – $\$3.15$  and on the second Tuesday of February, 1893,  $\$8.10$ – $\$8.65$ . Hops ranged from 6–7 cents in September, 1895, to 45–47 cents in November, 1890. Oats ranged from  $14\frac{3}{4}$  cents on the second Tuesday of September, 1896, to  $63\frac{1}{2}$ –64 cents on the fourth Tuesday of July, 1902. Native sheep ranged from  $\$0.75$ – $\$3.25$  on the fifth Tuesday of October, 1894, to  $\$4.50$ – $\$7.00$  on the fourth Tuesday of March, 1903. Western sheep show a similar range. Wheat ranged from  $48\frac{5}{8}$ – $49\frac{5}{8}$  cents the fifth Tuesday of January, 1895, to  $\$1.73$ – $\$1.85$  the second Tuesday of May, 1898. The high price is said to have been due to an attempt to control the price of that commodity and also, to some extent, to the war with Spain and the fear of other foreign complications. The most marked variations in the food group are in fresh vegetables, onions having varied from  $\$0.50$ – $\$1$  in May, 1896, to  $\$5$ – $\$10$  in February, 1890, and potatoes from 10–15 cents the third week of May and the third and fourth weeks of June, 1896, to  $\$1.10$ – $\$1.35$  the second week of June, 1891. Currants and dried apples show wide variations. Eggs varied from  $10\frac{1}{4}$ – $10\frac{1}{2}$  cents the first Tuesday of April, 1897, to 36–45 cents the last two Tuesdays of December, 1903. Lard also shows a wide variation. Almost all the articles in the food group show wide variations, which may be seen by referring to the foregoing table. In the cloths and clothing group the variations are not so marked, as the price of many of the articles in this group depends more largely upon the cost of labor in producing them. Print cloths varied from 1.875 cents the second week of May, 1898, to 4.063 cents the second week of December, 1892. Of the raw materials in this group wool, medium fleece, scoured, varied from 29.03 cents in June, 1895, and June to September, 1896, to 62.10 cents in June, July, August, and November, 1890. In the fuel and lighting group Youghioghenny coal varied from  $4\frac{1}{2}$ – $4\frac{3}{4}$  cents (per bushel) in March and April, 1899, to 11 cents in November, 1891; coke from 92 cents in April and May, 1894, to  $\$3.25$ – $\$4.25$  in March and April, 1900; and petroleum, crude, from  $51\frac{3}{8}$  cents in October, 1892, to  $\$1.88\frac{3}{8}$  in December, 1903. In the group of metals and implements best refined bar iron from mill varied from 0.95 cent (per pound) in July, 1897, to 2.60 cents in October, 1899;



barb wire from \$1.65 in August, 1897, to \$4.13 in December, 1899, to March, 1900; pig iron, foundry No. 2, from \$9.40–\$9.50 (per ton) in June, 1897, to \$24–\$25 in November, 1902; while bar silver varied from 48.213 cents in January, 1903, to \$1.16995 in August, 1890. In lumber and building materials Rosendale cement, doors, linseed oil, plate glass, resin, tar, turpentine, and window glass varied widely. In drugs and chemicals wood alcohol shows the greatest variation—from 50 cents in September to December, 1903, to \$1.40 in February to September, 1893. In house furnishing goods, kitchen chairs were \$3.25 (per dozen) from January to September, 1898, and \$5.25 from January to November, 1900. In the miscellaneous group cotton-seed meal, cotton-seed oil, news paper, and rope show wide variations.

Owing to the unusual method of fixing the scale of prices of cut and wire nails and the difficulties encountered in securing satisfactory quotations of prices, it was thought best to enter into a somewhat lengthy explanation in Bulletin No. 39, and the reader is referred to pages 226 to 231 of that number.

A copy of both the cut and wire nail cards now in use follows:

NATIONAL NAIL CARD SCALE OF EXTRAS.

[Cut nail card adopted at New York April 30, 1902; wire nail card adopted at New York December 1, 1896.]

Cut nails.	Price above base per 100- pound keg.	Wire nails.	Price above base per 100- pound keg.
<i>Common, fence, hook-head brads, and sheathing.</i>		<i>Common, fence, flooring, and common brads.</i>	
20d. to 60d.....	Base.	20d. to 60d.....	Base.
10d. to 16d.....	\$0.05	10d. to 16d.....	\$0.05
8d. and 9d.....	.10	8d. and 9d.....	.10
6d. and 7d.....	.20	6d. and 7d.....	.20
4d. and 5d.....	.30	4d. and 5d.....	.30
3½d.....	.40	3d.....	.45
3d.....	.45	2d.....	.70
2d.....	.75		
		<i>Barbed common and barbed car.</i>	
		Advance over common.....	.15
<i>Casing, box, flooring, and finishing.</i>		<i>Casing and smooth box.</i>	
10d. and larger.....	.15	10d. and larger.....	.15
8d. and 9d.....	.25	8d. and 9d.....	.25
6d. and 7d.....	.35	6d. and 7d.....	.35
4d. and 5d.....	.50	4d. and 5d.....	.50
3d.....	.70	3d.....	.70
2d.....	1.00	2d.....	1.00
		<i>Barbed box.</i>	
		Advance over smooth.....	.15
<i>Fine.</i>		<i>Fine.</i>	
4d.....	.50	3d.....	.50
3d.....	.75	2d.....	1.00
2d.....	1.00		
3d fine (Eureka).....	1.25		
3d fine (light).....	1.25		



## NATIONAL NAIL CARD SCALE OF EXTRAS—Concluded.

[Cut nail card adopted at New York April 30, 1902; wire nail card adopted at New York December 1, 1896.]

Cut nails.	Price above baseper 100- pound keg.	Wire nails.	Price above baseper 100- pound keg.
<i>Fine finishing.</i>		<i>Smooth finishing.</i>	
10d. and larger .....	\$0.25	10d. and larger .....	\$0.25
8d. and 9d .....	.35	8d. and 9d .....	.35
6d. and 7d .....	.45	6d. and 7d .....	.45
4d. and 5d .....	.50	4d. and 5d .....	.65
3d .....	.85	3d .....	.85
2d .....	1.15	2d .....	1.15
<i>Spikes.</i>		<i>Spikes.</i>	
All sizes .....	.10	All sizes .....	.10
<i>Light barrel and lining.</i>		<i>Lining.</i>	
1 $\frac{1}{8}$ -inch .....	.75	1-inch .....	.80
1-inch .....	.85	$\frac{7}{8}$ -inch .....	1.00
$\frac{7}{8}$ -inch .....	1.00	$\frac{3}{4}$ -inch .....	1.20
$\frac{3}{4}$ -inch .....	1.20		
<i>Common barrel, roofing, cooper, and cement.</i>		<i>Barrel.</i>	
1 $\frac{1}{8}$ -inch .....	.30	1 $\frac{1}{8}$ -inch .....	.30
1 $\frac{3}{8}$ -inch .....	.40	1 $\frac{3}{8}$ -inch .....	.40
1 $\frac{1}{4}$ -inch .....	.50	1 $\frac{1}{4}$ -inch .....	.50
1 $\frac{1}{2}$ -inch .....	.60	1 $\frac{1}{2}$ -inch .....	.60
1-inch .....	.70	1-inch .....	.70
$\frac{7}{8}$ -inch .....	.85	$\frac{7}{8}$ -inch .....	.85
$\frac{3}{4}$ -inch .....	1.00	$\frac{3}{4}$ -inch .....	1.00
<i>Clinch, car, boat, chute, clout, hoop, and hinge.</i>		<i>Barbed roofing.</i>	
3-inch and larger .....	.45	2-inch .....	.35
2 $\frac{1}{2}$ and 2 $\frac{3}{4}$ inch .....	.55	1 $\frac{3}{4}$ -inch .....	.45
2 and 2 $\frac{1}{2}$ inch .....	.65	1 $\frac{1}{2}$ -inch .....	.45
1 $\frac{1}{2}$ and 1 $\frac{3}{4}$ inch .....	.75	1 $\frac{1}{4}$ -inch .....	.55
1 $\frac{1}{4}$ -inch .....	.95	1 $\frac{1}{8}$ -inch .....	.60
1 $\frac{1}{2}$ -inch .....	1.05	1-inch .....	.60
1-inch .....	1.15	$\frac{7}{8}$ -inch .....	.65
$\frac{7}{8}$ -inch .....	1.30	$\frac{3}{4}$ -inch .....	.75
$\frac{3}{4}$ -inch .....	1.45		
<i>Slating.</i>		<i>Slating.</i>	
6d .....	.30	6d .....	.30
4d. and 5d .....	.40	4d. and 5d .....	.40
3d .....	.60	3d .....	.60
2d .....	.80	2d .....	.80
<i>Tobacco manufacturers box.</i>		<i>Barred dowel pins.</i>	
6d. and 7d. lining .....	.20	1 $\frac{1}{2}$ -inch .....	1.00
4d. and 5d .....	.30	1 $\frac{3}{8}$ -inch .....	1.00
5d. caddy .....	.30	1 $\frac{1}{4}$ -inch .....	1.00
4d. caddy .....	.50	1 $\frac{1}{8}$ -inch .....	1.15
3d. caddy .....	.70	1-inch .....	1.25
		$\frac{7}{8}$ -inch .....	1.50
<i>Tobacco warehouse.</i>		$\frac{3}{4}$ -inch .....	1.75
8d .....	.10	$\frac{5}{8}$ -inch .....	2.00
6d. and 7d .....	.20		
4d. and 5d .....	.40		

Several nail cards have been in use during the fourteen years from 1890 to 1903. The base sizes under the various cards, and also the

advance for the different sizes of common and fence nails, are shown in the following table:

BASE SIZES AND ADVANCE ABOVE BASE PRICE FOR THE DIFFERENT SIZES OF COMMON AND FENCE NAILS UNDER THE VARIOUS NAIL CARDS IN USE FROM 1890 TO 1903.

Size.	Cut nails.						Wire nails.			
	Card adopted Oct. 22, 1889.	Card adopted Mar. 13, 1890.	Card adopted Feb. 21, 1893.	Card adopted July 18, 1895.(a)	Card adopted Dec. 1, 1896.	Card adopted Apr. 30, 1902.	Card adopted June 1, 1889.	Card adopted Apr. 11, 1892.	Card adopted July 19, 1895.(a)	Card adopted Dec. 1, 1896.
60d.....	\$0. 25	Base.	Base.	\$0. 50	Base.	Base.	Base.	Base.	\$0. 50	Base.
50d.....	. 25	Base.	\$0. 10	. 50	Base.	Base.	\$0. 10	\$0. 10	. 50	Base.
40d.....	. 10	\$0. 05	. 25	. 50	Base.	Base.	. 20	. 25	. 50	Base.
30d.....	. 10	. 10	. 25	. 50	Base.	Base.	. 20	. 25	. 50	Base.
20d.....	. 10	. 15	. 35	. 50	Base.	Base.	. 30	. 35	. 50	Base.
16d.....	Base.	. 15	. 45	. 50	\$0. 05	\$0. 05	. 35	. 45	. 50	\$0. 05
12d.....	Base.	. 15	. 45	. 50	. 05	. 05	. 35	. 45	. 50	. 05
10d.....	. 10	. 20	. 50	. 50	. 05	. 05	. 40	. 50	. 50	. 05
9d.....	. 25	. 25	. 60	. 60	. 10	. 10	. 50	. 60	. 60	. 10
8d.....	. 25	. 25	. 60	. 60	. 10	. 10	. 50	. 60	. 60	. 10
7d.....	. 40	. 40	. 75	. 75	. 20	. 20	. 65	. 75	. 75	. 20
6d.....	. 40	. 40	. 75	. 75	. 20	. 20	. 65	. 75	. 75	. 20
5d.....	. 60	. 60	. 90	. 90	. 30	. 30	. 90	. 90	. 90	. 30
4d.....	. 60	. 60	. 90	. 90	. 30	. 30	. 90	. 90	. 90	. 30
3½d.....						. 40				
3d.....	1. 60	1. 00	1. 20	1. 20	. 45	. 45	1. 50	1. 20	1. 20	. 45
2d.....	1. 50	1. 50	1. 60	1. 60	. 70	. 75	2. 00	1. 60	1. 60	. 70

a No base size; all nails sold at an advance above base price.

The base prices of nails are the prices quoted by the trade, and while they could not be used, for reasons explained in Bulletin No. 39, in computing relative prices, they form the basis from which are calculated the actual prices for eight-penny nails as given in Table I, and therefore the base prices of both cut and wire nails during 1903 are given in the following table:

NAILS: CUT, BASE SIZES.

[Price per 100-pound keg, f. o. b. Pittsburg, on the first of each month; quotations from the Iron Age.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
January .....	\$2. 05	April .....	\$2. 15	July .....	\$2. 15	October.....	\$2. 15
February .....	2. 10	May .....	2. 15	August .....	2. 15	November...	1. 95
March .....	2. 10	June.....	2. 15	September...	2. 15	December ...	1. 90
						Average.	\$2. 0958

NAILS: WIRE, BASE SIZES.

[Price per 100-pound keg, f. o. b. Pittsburg, on the first of each month; quotations from the Iron Age.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
January .....	\$1. 90	April .....	\$2. 00	July .....	\$2. 00	October.....	\$2. 00
February .....	1. 90	May .....	2. 00	August .....	2. 00	November...	2. 00
March .....	2. 00	June.....	2. 00	September...	2. 00	December ...	1. 90
						Average.	\$1. 9750

In previous Bulletins quotations have been published for two descriptions of scoured wool, but in view of the fact that such a large proportion of the wool is now being marketed unwashed, monthly



price quotations for a standard grade of unwashed wool have been secured.

For comparative purposes the quotations on the scoured basis are continued in Table I. No relative prices were computed from the quotations of unwashed wool. It may be necessary at some future time to use these quotations in the index number, and it was considered advisable to secure them while the records for previous years were in existence.

The quotations of actual prices of unwashed wool on the first of each month from 1890 to 1903 follow:

WHOLESALE PRICES OF UNWASHED, OHIO, MEDIUM FLEECE WOOL (ONE-FOURTH AND THREE-EIGHTHS GRADE), 1890 TO 1903.

[Price per pound in the eastern markets (Baltimore, Boston, New York, and Philadelphia) on the first of each month.]

Year.	Jan- uary.	Feb- ruary.	March.	April.	May.	June.	July.	Au- gust.	Sep- tem- ber.	Oc- tober.	No- vem- ber.	De- cem- ber.	Aver- age.
1890...	\$0.27	\$0.25 $\frac{3}{4}$	\$0.25 $\frac{3}{4}$	\$0.25 $\frac{1}{2}$	\$0.26	\$0.27	\$0.26 $\frac{1}{2}$	\$0.26 $\frac{1}{2}$	\$0.25 $\frac{3}{4}$	\$0.27	\$0.27 $\frac{1}{2}$	\$0.27 $\frac{1}{2}$	\$0.2648
1891...	.27 $\frac{1}{2}$	.27 $\frac{3}{4}$	.27 $\frac{3}{4}$	.27 $\frac{1}{2}$	.26 $\frac{3}{4}$	.26	.26	.26	.26 $\frac{1}{4}$	.26 $\frac{1}{4}$	.26 $\frac{1}{4}$	.26 $\frac{1}{4}$	.2669
1892...	.26	.27 $\frac{1}{4}$	.26 $\frac{3}{4}$	.25 $\frac{1}{2}$	.25 $\frac{1}{2}$	.26	.26 $\frac{1}{4}$	.26	.25 $\frac{1}{4}$	.25 $\frac{1}{4}$	.25 $\frac{1}{4}$	.25 $\frac{1}{4}$	.2585
1893...	.25 $\frac{3}{4}$	.26 $\frac{1}{4}$	.26 $\frac{1}{4}$	.26	.25	.22	.20	.20 $\frac{1}{4}$	.20	.19 $\frac{1}{4}$	.19 $\frac{1}{4}$	.19 $\frac{1}{2}$	.2246
1894...	.19 $\frac{1}{2}$	.18 $\frac{1}{2}$	.19	.19	.19	.18	.16 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17	.16 $\frac{1}{2}$	.1796
1895...	.16	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.16	.15 $\frac{1}{2}$	.18	.18	.18	.18	.18	.18	.1708
1896...	.18	.18	.18	.17 $\frac{1}{2}$	.16	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.16	.1638
1897...	.16	.16	.17 $\frac{1}{2}$	.18	.18	.18	.19 $\frac{1}{2}$	.20 $\frac{1}{2}$	.22	.22 $\frac{1}{2}$	.23 $\frac{1}{2}$	.23 $\frac{1}{2}$	.1958
1898...	.23 $\frac{1}{2}$	.23 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22	.22	.22 $\frac{1}{2}$	.23	.23	.22 $\frac{1}{2}$	.22	.21 $\frac{3}{4}$	.2258
1899...	.21 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22	.22	.22 $\frac{1}{2}$	.23 $\frac{1}{2}$	.24	.24	.24 $\frac{1}{2}$	.25 $\frac{1}{2}$	.28	.2356
1900...	.28 $\frac{1}{2}$	.29	.28 $\frac{1}{2}$	.27	.26 $\frac{1}{2}$	.25	.24 $\frac{1}{2}$	.24 $\frac{1}{2}$	.24	.23 $\frac{1}{2}$	.23 $\frac{1}{2}$	.23 $\frac{1}{2}$	.2567
1901...	.23 $\frac{1}{2}$	.23	.23	.23	.21 $\frac{1}{2}$	.19 $\frac{1}{2}$	.19 $\frac{1}{2}$	.19 $\frac{1}{2}$	.20 $\frac{1}{2}$	.20 $\frac{1}{2}$	.20 $\frac{1}{2}$	.21 $\frac{1}{2}$	.2129
1902...	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.22 $\frac{1}{2}$	.23	.23	.23 $\frac{1}{2}$	.23 $\frac{1}{2}$	.24	.2238
1903...	.24 $\frac{1}{2}$	.24 $\frac{1}{2}$	.23 $\frac{3}{4}$	.23	.22 $\frac{3}{4}$	.23 $\frac{1}{4}$	.24 $\frac{1}{2}$	.24 $\frac{3}{4}$	.24 $\frac{3}{4}$	.25	.25	.25	.2425

*Table II.—Base prices (average for 1890–1899), and monthly actual and relative prices of commodities in 1903, pages 320 to 337.*—This table shows for each commodity the base price (average price for the 10-year period, 1890–1899), either the average price or the price on some one day of each month, and the relative price for each month of 1903. In addition this table shows for each commodity the average price and the relative price for the year 1903. The monthly prices for such articles as are quoted weekly in Table I were found by dividing the sum of the quotations in each month as shown in Table I by the number of quotations in each month. In Table I single quotations for 1903 are shown for 11 articles. The prices of six of these are maintained throughout the year and the prices of three others represent the bulk of the sales and are maintained generally; therefore for each of these nine articles the annual price has been shown in Table II as the price during each month. The other two articles for which single quotations for 1903 are shown in Table I have a September price which represents the bulk of the sales for the year, and the relative price for 1903 was, therefore, computed from that price, but the price at which sales were made from January to March was the price of September, 1902; from April to August the price of April, 1903, and from September to December the price of September, 1903; consequently these prices were used in this table presenting monthly prices.



It was impossible to secure quotations during all of the months of the year for 3 of the 260 articles, viz: Buckwheat flour, for which there is no demand during the summer months; potatoes; and sheetings, bleached, 10-4, Atlantic.

The average price for 1903 was obtained, as has already been explained, by dividing the sum of the quotations for the year as shown in Table I by the number of quotations for the year. The average price for the 10-year period, 1890 to 1899, was obtained by dividing the sum of the average prices of the 10 years by 10. This average price for 10 years has been adopted as the base for all relative prices. For the ten articles which do not show prices for the entire period of 10 years, 1890 to 1899, the base in each case is the average of the years prior to and including 1899. In explanation of the term base or standard as used in connection with relative prices or index numbers, it may be stated that in reducing a series of actual prices to relative prices a base must first be chosen, and this may be either a single quotation, the average price for 1 year, or the average for 2 or more years. If the price for a single year is chosen, it is essential that that year be a normal one, for if prices are high in the year chosen for the base any subsequent fall will be unduly emphasized, while, on the other hand, if prices are low any subsequent rise will be emphasized. Upon examination of the prices since 1890 it was found that all the commodities did not present a normal condition as regards prices in any one year. For this reason it was decided that an average price for a number of years would better reflect average or approximately normal conditions and form a more satisfactory base than would the price for any single year. The period chosen as this base was that from 1890 to 1899—a period of 10 years. The average price for the base period was found, as previously stated, by adding together the average prices for all of the 10 years and dividing by 10.

The relative prices as shown in this and succeeding tables have been calculated in the usual manner and represent simply the percentage which each monthly or yearly price is of the base price. The average price for the first 10 years of the period, or the base, always represents 100, and the percentages for each month or year enable the reader to measure readily the rise and fall from month to month or from year to year of the prices of each single commodity, of any group of commodities, or of all the 260 commodities involved. These commodities are arranged in alphabetical order under each of the nine general groups, as in Table I.

In order that the method pursued may be more readily understood, the reader is referred to the table itself, as given on pages 320 to 337. Taking up the first commodity shown, barley, we find that the average price per bushel for the base period, 1890 to 1899, inclusive, was 45.34 cents; the average price for January, 1903, was 56 cents; that for February was 54.13 cents; that for March 52.88 cents, etc. The rela-



tive price for the base period, as heretofore explained, is always placed at 100 and is so given in the table. The relative price for January, 1903, is shown to be 123.5, or 23.5 per cent higher than the base or average for the 10 years. In February the relative price was 119.4, or 19.4 per cent above the base; in March the relative price was 116.6, or 16.6 per cent above the base; in April it was 115.8, or 15.8 per cent above the base; in May it rose to 120.0, or 20.0 per cent above the base; in June it was 118.0, or 18.0 per cent above the base; in July it dropped to 114.0, or 14.0 per cent above the base, but rose again in August to 118.3, or 18.3 per cent above the base; in September it reached the highest point shown for the year, 130.1, or 30.1 per cent above the base; from that point it declined until December when it was 123.9, or 23.9 per cent above the base. The relative price for the year 1903 was 121.2, or 21.2 per cent above the base. The figures in each case were secured according to the method already explained, that for January, 1903, being expressed as follows:

Average price for base period.....	\$0. 4534
Average price for January, 1903 .....	. 5600
Relative price for base period .....	100. 0
Relative price for January, 1903 .....	123. 5

The remainder of the table may be analyzed in a similar manner.

The value of prices given in this relative form, it will readily be seen, consists in the means afforded for tracing and measuring the changes from month to month, from year to year, or from period to period, and in the combination of prices of a sufficient number of commodities to show the general price level. It must not be assumed that a system of relative prices of representative commodities will enable one to trace the causes of changes in the general price level or to determine the effect of such changes on any class of consumers or on all consumers. The use of such a system is to show the general course of prices from time to time of one commodity, of a group of commodities, or of all commodities.

No attempt has been made in any way to go into the causes of the rise and fall of prices. The aim has been to give the prices as they actually prevailed in the market. The relative prices or index numbers must be accepted merely as showing the course of prices both of the individual articles and the market in general. The causes are too complex, the relative influence of each too uncertain, in some cases involving too many economic questions, to permit their discussion in connection with the present article. It will be sufficient to enumerate some of the influences that cause changes in prices. Such influences include variations in harvest, which not only restrict or increase the supply and consequently tend to increase or decrease the price of a commodity, but also restrict or increase, to a greater or less degree, the purchasing power of such communities as are dependent in whole or in part upon such commodity; changes in demand due to



changes in fashions, seasons, etc.; legislation altering internal-revenue taxes, import duties, or bounties; use of substitutes—as, for instance, an advance in the price of beef will cause an increased consumption of pork and mutton, and, it may be added, a probable increase in the price of both pork and mutton; improvements in methods of production which will tend either to give a better article for the same price or an equal article for a lower price; cheapening of transportation or handling; speculative manipulation of the supply or of the raw product; commercial panic or depression; overproduction; unusual demand owing to steady employment of consumers; short supply owing to disputes between labor and capital in industries of limited producing capacity, as in the anthracite coal industry in 1902; organization or combination of mills or producers, thus enabling, on the one hand, a greater or less control of prices or, on the other hand, economies in production or in transportation charges through the ability to supply the article from the point of production or manufacture nearest the purchaser. So far as individual commodities are concerned, no conclusion can safely be formed as to causes without an examination of the possible influence of several—in some cases perhaps all—of these causes. For example, the various internal-revenue and tariff acts have, in a marked degree, no doubt affected the prices of proof spirits, of tobacco, and of sugar. But, on the other hand, they have not been alone in their influences, and it probably would not in all cases be accurate to give the change of tax or duty as representing the measure of a certain and definite influence on the prices of those commodities.

It is important that the greatest care be exercised in the choice of commodities in order that a simple average of their relative prices shall show a general price level. In the present compilation 260 commodities are shown, and it has been the aim of the Bureau to select only important and representative articles in each group. The number of articles included is larger than has heretofore been used in similar compilations, but the use of a large number of articles carefully selected minimizes the effect on the general price level of an unusual change in the price of any one article or of a few articles. It will be seen that more than one series of prices have been given in the case of articles of great importance. This has been done for the purpose of giving due weight to these important commodities, no other method of accomplishing this having been found satisfactory in this country. The same means have been employed by Mr. Sauerbeck in his English prices, as explained in Bulletin No. 39, and the approximate accuracy of the same, as an indication of the variation of prices, has been proved by various tests based on the amount of production, etc.

Various methods of weighting have been attempted in connection with previous compilations of relative prices. One method employed by European statisticians is to measure the importance of each commodity by its annual consumption by the entire nation, the annual



consumption being found by adding to the home production the amount imported and subtracting the amount exported. The impossibility of securing even approximately accurate figures for annual consumption in the United States of the commodities included in this compilation renders this method unavailable here. The method employed in the Aldrich report consisted in giving to the various commodities or groups of commodities an importance based upon their consumption in normal families. There are, of course, many commodities whose importance can not be measured by this method. It has been thought best in the present series of index numbers, after a careful consideration of all methods of weighting, simply to use a large number of representative staple articles, selecting them in such a manner as to make them, to a large extent, weight themselves. Upon a casual examination it may seem that by this method a comparatively unimportant commodity—such, for instance, as cotton-seed meal—has been given the same weight or importance as one of the more important commodities, such as wheat. A closer examination, however, shows that cotton-seed meal enters into no other commodity under consideration, while wheat is not only quoted as the raw material, but enters into the two descriptions of wheat flour, the two descriptions of crackers, and the three descriptions of loaf bread.

Material changes in the description of three articles were made in 1902, and of two articles in 1903.

For two of these articles the trade journals no longer supply regular quotations, and the manufacture of the particular grades of the other three previously quoted has been discontinued by the establishments heretofore furnishing quotations.

The articles in which changes occur are—"Leather: harness, oak, country middles, 14 pounds and up (except overweights, 20 pounds and up)," for which has been substituted "Leather: harness, oak, packers' hides, heavy No. 1;" "Sheetings: brown, 4-4, Stark, A. A.," for which has been substituted "Sheetings, brown, 4-4, Massachusetts Mills, Flying Horse brand;" "Trouserings: fancy worsted, 22 to 23 ounce, worsted filling, wool and worsted backs," for which has been substituted "Trouserings: fancy worsted, 21 to 22 ounce, all worsted warp and filling, wool and worsted back;" "Underwear: shirts and drawers, white, merino, full-fashioned, 52 per cent wool, 48 per cent cotton, 24 gauge," for which has been substituted "Underwear: shirts and drawers, white, merino, full-fashioned, 60 per cent wool, 40 per cent cotton, 24 gauge;" and "Shingles: white pine, 18 inches long, XXXX," for which has been substituted "Shingles: Michigan white pine, 16 inches long, XXXX."

In making these substitutions articles were supplied corresponding as closely as possible to those which had been previously used.

Some explanation of the method of computing the relative price of these articles is necessary, and shingles will be used as an illustration.



It must be understood that during the years when 18-inch shingles were quoted they were assumed to represent the several lengths and grades of white pine shingles; that is, that the course of prices of a standard grade of white pine shingles in an index number of prices fairly represents the course of prices of the various grades of white pine shingles. Therefore when it became necessary to substitute, in 1902, the 16-inch shingles for the 18-inch, prices were secured for 16-inch shingles for both 1901 and 1902, and it was found that the price for the year 1902 was 9.96 per cent above the price for the year 1901. The relative price of 18-inch shingles in 1901, as shown in Table IV, was 111.9 (average price for the 10 years, 1890 to 1899, equals 100), and if 18-inch shingles represented white pine shingles at that time and 16-inch shingles now represent the class, shingles (shown by the increase in price of 16-inch shingles) advanced, in 1902, 9.96 per cent above the price in 1901, and the relative price in 1902 was therefore 109.96 per cent of 111.9, the relative price in 1901, which gives 123 as the relative price in 1902. The same method was followed in computing relative prices for each of the months of 1902. The average price in 1903 was 1.74 per cent above the price in 1902; therefore the relative price in 1903 was 101.74 per cent of 123, the relative price in 1902, which gives 125.1 as the relative price in 1903. The same method was followed for leather and sheetings. For trouserings and underwear the exact grade quoted for 1903 was not manufactured in 1902. The manufacturer of trouserings, however, estimates that one-half the advance in price over the price for the grade quoted for previous years was due to the fact that it was a better article and the other half to the advance in price of material and cost of manufacture. The advance was \$0.1125 per yard over the price in 1902; one-half of this, \$0.05625, was added to the 1902 price of the 22 to 23 ounce trouserings to secure a theoretical 1902 price for the 21 to 22 ounce trouserings, and the 1903 relative price was then computed as above. Underwear was arbitrarily given the same relative price in 1903 as in 1902, as the all-wool underwear manufactured by the same firm shows no change in price.

*Table III.—Relative prices of commodities in 1903, pages 337 to 349.*—This table is taken from Table II and shows the relative prices of each of the commodities included there. In this table similar commodities have been grouped, and the average of the relative prices shown for the commodities in each subgroup and in each of the nine general groups. The averages in all cases were found by dividing the sum of the relative prices by the number of commodities in the group under consideration. It should be borne constantly in mind that the term commodity is used here and elsewhere in a specific sense, “native” and “Western” sheep, for example, being considered different commodities. The method of securing average relative prices in this and other tables was as follows: The average relative price of cattle was



found by adding the relative prices of the two grades of cattle and dividing the sum by 2. The average for hogs was found in the same manner, and also the average for sheep. The average for live stock was found by dividing the sum of the relative prices of the two grades of cattle, the two grades of hogs, and the two grades of sheep by 6, the total number of different descriptions of commodities or series of quotations in the live-stock group. The average relative price of each of the nine general groups was found by dividing the sum of the relative prices of the different descriptions of commodities for each month by the number of these commodities or series of quotations considered. The sum of the relative prices in January, 1903, of the commodities shown under the general group, "food, etc.," for example, is 6,063.1, which amount divided by 54, the number of different descriptions of commodities or series of quotations considered in that group, gives 112.3 the average for the group "food, etc.," for January, 1903. As explained in the discussion of Table II, it was impossible to secure quotations during all of the months of the year for 3 of the 260 articles. In order of arrangement these are buckwheat flour, potatoes, and sheetings—bleached, 10-4, Atlantic. In presenting monthly relative prices for these articles a nominal relative price (which is the same as the relative price for the month in which the article was last quoted) has been entered in this table for the months for which no price quotation is shown in Table I. This nominal price enters into the average for the subgroup, the general group, and "all commodities" for that month.

The average relative price of each of the nine general groups for each month of 1903 and for the year 1903, and the average relative price of all commodities for each month and for the year, are shown in the following summary:

## SUMMARY OF RELATIVE PRICES OF COMMODITIES IN 1903, BY GROUPS.

[Average price for 1890-1899 = 100.]

Month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and implements.	Lumber and building materials.	Drugs and chemicals.	House-furnishing goods.	Miscellaneous.	All commodities.
January .....	123.3	112.3	104.2	178.6	119.4	120.7	111.8	112.2	113.3	115.9
February .....	124.8	111.4	104.5	178.6	119.6	122.8	111.4	112.2	113.5	116.1
March .....	127.0	112.3	104.9	154.8	121.6	123.3	113.7	113.1	114.9	115.9
April .....	125.0	110.0	105.0	149.0	123.1	120.9	111.4	113.1	114.2	114.9
May .....	122.1	104.8	105.4	145.0	121.9	118.7	112.8	113.1	115.1	113.2
June .....	121.1	105.6	106.3	143.1	119.7	120.6	113.7	113.1	114.3	113.4
July .....	115.8	103.8	107.5	141.1	118.1	120.1	113.1	113.1	114.3	112.6
August .....	114.8	103.1	107.8	140.3	117.0	119.5	113.9	113.1	114.4	112.2
September .....	117.2	107.1	108.2	140.4	115.8	121.5	112.8	112.7	114.4	113.3
October .....	112.5	104.4	108.0	141.2	114.3	121.3	112.6	113.5	114.5	112.3
November .....	109.9	105.6	108.1	140.1	111.8	124.3	112.5	113.5	110.4	112.1
December .....	112.2	105.5	108.6	139.8	109.0	123.1	111.4	113.5	110.1	111.7
1903 .....	118.8	107.1	106.6	149.3	117.6	121.4	112.6	113.0	113.6	113.6

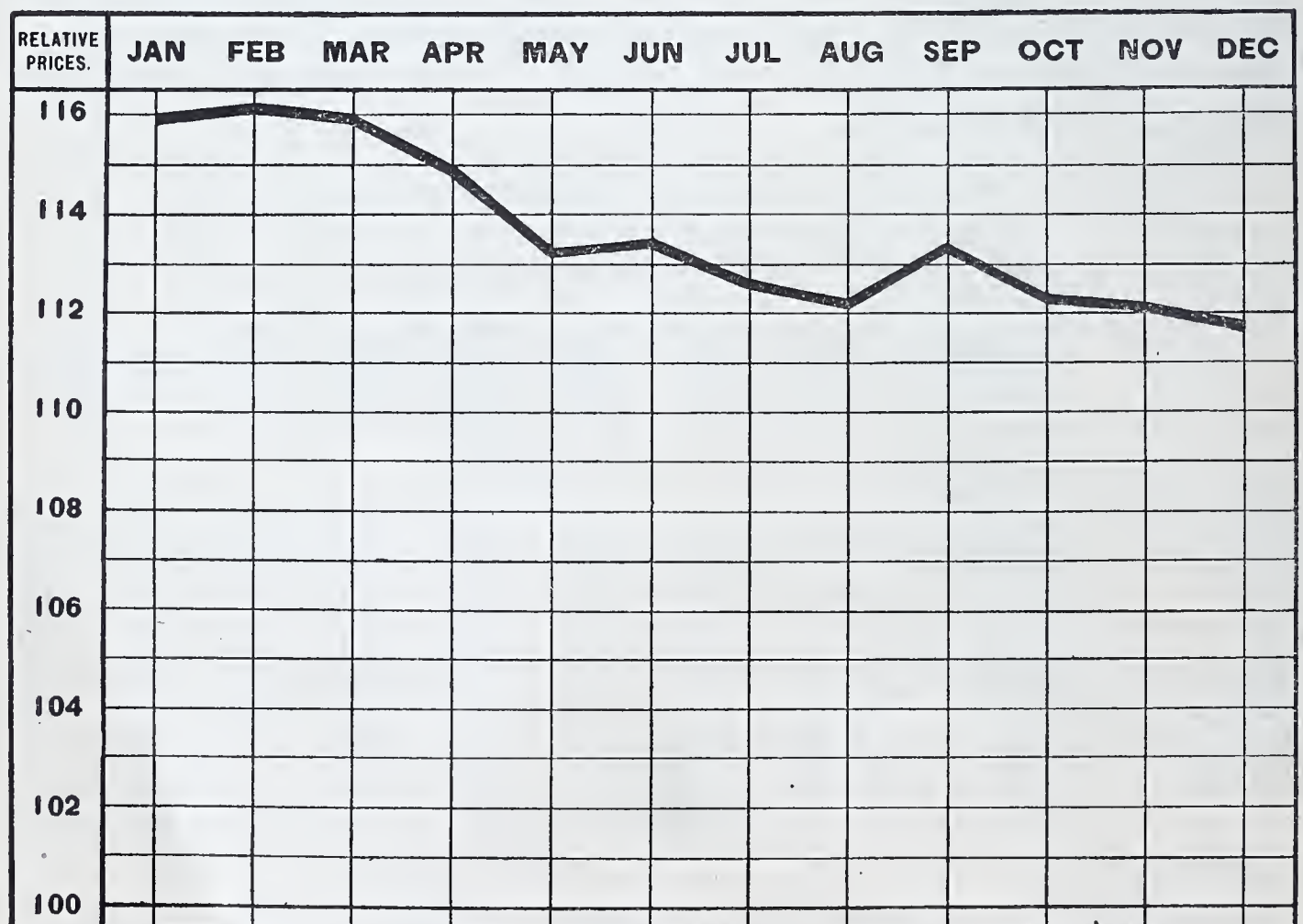
In this table the average relative prices of farm products are based on 16 articles; of food, etc., on 54 articles; of cloths and clothing, on



The table shows that the group of farm products reached the lowest average in November and the highest in March; that of food, etc., the lowest in August and the highest in January and March, the relative price being the same in these two months; that of cloths and clothing, the lowest in January and the highest in December; that of fuel and lighting, the lowest in December and the highest in January and February; that of metals and implements, the lowest in December and the highest in April; that of lumber and building materials, the lowest in May and the highest in November; that of drugs and chemicals, the lowest in February, April, and December and the highest in August; that of house furnishing goods, the lowest in January and February and the highest in October, November, and December; while in the miscellaneous group the lowest average was reached in December and the highest in May. All commodities combined reached the lowest average of the year in December and the highest in February.

## RELATIVE PRICES OF ALL COMMODITIES IN 1903.

(AVERAGE PRICE FOR 1890 TO 1899 = 100.)





Many students of price statistics desire to distinguish between raw commodities and manufactured commodities, or those which have been prepared for consumption by the application of manufacturing processes and in which manufacturing labor forms a considerable part of the cost. To meet the wishes of this class of readers, therefore, the commodities included in this price series have been divided into the two classes, raw and manufactured, and simple averages made for each class. Of course, hard and fast definitions of these classes can not be made, but the commodities here designated as raw may be said to be such as are marketed in their natural state and such as have been subjected to only a preliminary manufacturing process, thus converting them into a marketable condition, but not to a suitable form for final consumption, while the commodities here designated as manufactured are such as have been subjected to more than a preliminary factory manipulation and in which the manufacturing labor cost constitutes an important element in the price. In the group designated as raw are included all farm products, beans, coffee, eggs, milk, rice, nutmegs, pepper, tea, vegetables, raw silk, wool, coal, crude petroleum, copper ingots, pig lead, pig iron, bar silver, spelter, pig tin, brimstone, jute, and rubber—a total of 50 articles.

All the other articles are classed as manufactured commodities.

The table follows:

RELATIVE PRICES OF RAW COMMODITIES, MANUFACTURED COMMODITIES, AND ALL COMMODITIES, IN 1903.

[Average price for 1890-1899 = 100.]

Month.	Raw commodities.	Manufactured commodities.	All commodities.
January .....	133.0	111.8	115.9
February .....	133.0	112.0	116.1
March .....	127.8	113.1	115.9
April .....	125.8	112.3	114.9
May .....	121.5	111.3	113.2
June .....	121.6	111.4	113.4
July .....	119.9	110.9	112.6
August .....	118.6	110.7	112.2
September .....	120.7	111.6	113.8
October .....	118.1	110.9	112.3
November .....	117.2	110.9	112.1
December .....	117.5	110.4	111.7
1903.....	122.7	111.5	113.6

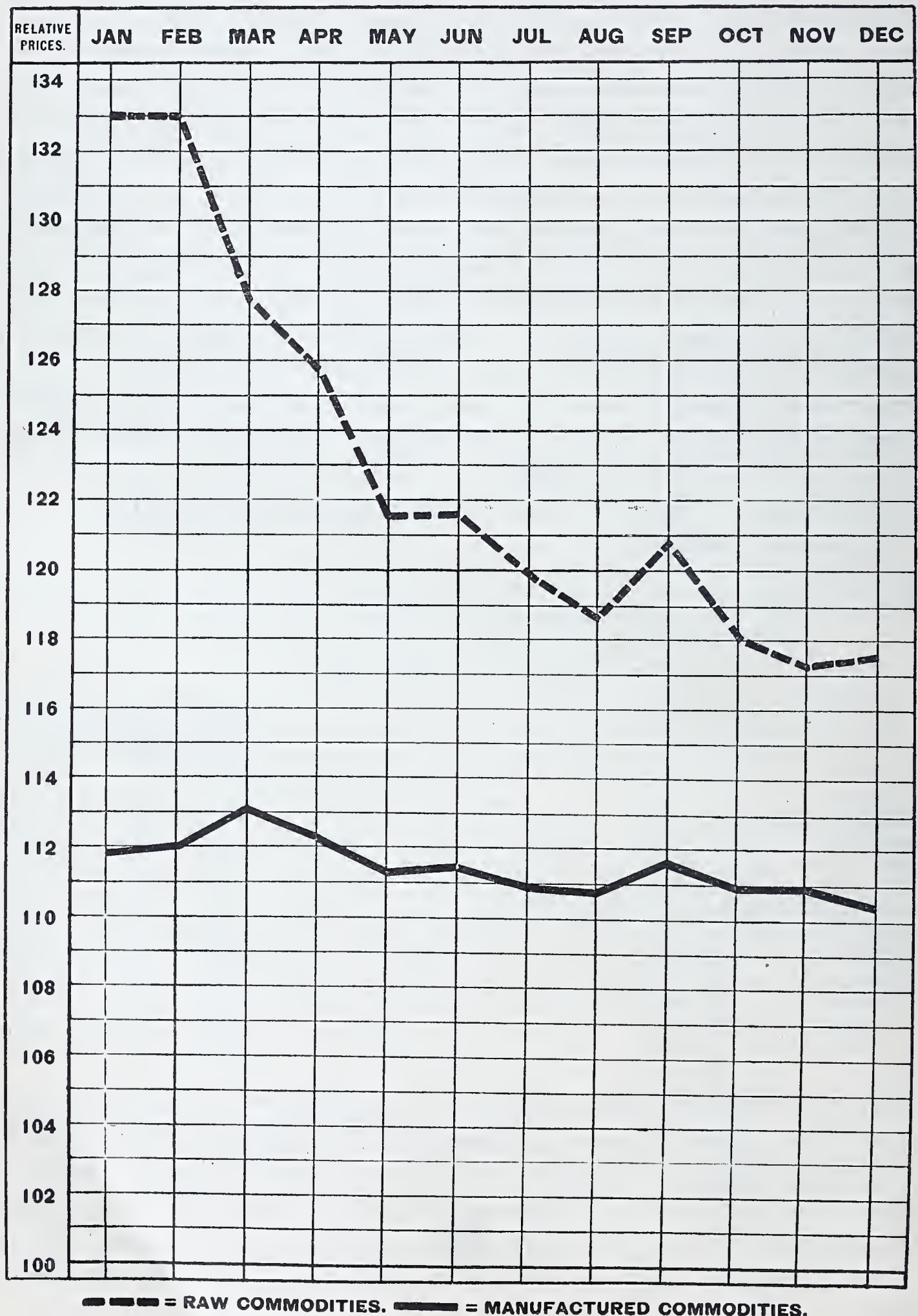
The raw commodities reached the lowest average of the year in November and the highest in January and February; manufactured commodities reached the lowest in December and the highest in March. The average for raw commodities ranged from 117.2 per cent to 133.0 per cent above the base price, while the average for manufactured commodities ranged from 110.4 per cent to 113.1 per cent above the base price.



The course of prices of raw and manufactured commodities during 1903 is shown in the graphic table which follows:

## RELATIVE PRICES OF RAW AND MANUFACTURED COMMODITIES IN 1903.

(AVERAGE PRICE FOR 1890 TO 1899 = 100.)



*Table IV.—Base prices (average for 1890–1899), and average yearly actual and relative prices of commodities, 1890 to 1903, pages 349 to 367.*—This table shows for each commodity the base price (average price for the 10-year period, 1890–1899), the average price for each of the 14 years from 1890 to 1903, and the relative price for each year. The average price for each year was obtained, as has been explained, by dividing the sum of the quotations for each year as shown in Table I by the number of quotations for each year. The average price for the 10-year period 1890 to 1899 was obtained by dividing the sum of the average prices of the 10 years by 10. The relative prices for each year were computed in the same way as for each month, as explained in the discussion of Table II.

*Table V.—Relative prices of commodities, 1890 to 1903, pages 367 to 379.*—This table is taken from Table IV and shows the relative prices of each of the commodities included there. In this table similar commodities have been grouped and the average of the relative prices shown for the commodities in each subgroup and in each of the nine general groups. The averages in all cases were found by dividing the sum of the relative prices by the number of commodities in the group under consideration, as explained in the discussion of Table III.

The average relative price of each of the nine general groups was found by dividing the sum of the relative prices of the different descriptions of commodities for each year by the number of these commodities or series of quotations considered in that year. The sum of the relative prices in 1890 of the commodities shown under the general group, "food, etc.," for example, is 5,958.2, which amount divided by 53, the number of different descriptions of commodities or series of quotations considered that year, gives 112.4, the average for the group "food, etc.," for 1890. For 1893 to 1903, 54 commodities are quoted in this group, and that number is accordingly the divisor for each of those years.

The average relative price of each of the nine general groups for each year of the period, and the average relative price of all commodities for each year, are shown in the summary following.



## SUMMARY OF RELATIVE PRICES OF COMMODITIES, 1890 TO 1903, BY GROUPS.

[Average price for 1890-1899 = 100.]

Year.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and implements.	Lumber and building materials.	Drugs and chemicals.	House furnishing goods.	Miscellaneous.	All commodities.
1890 .....	110.0	112.4	113.5	104.7	119.2	111.8	110.2	111.1	110.3	112.9
1891 .....	121.5	115.7	111.3	102.7	111.7	108.4	103.6	110.2	109.4	111.7
1892 .....	111.7	103.6	109.0	101.1	106.0	102.8	102.9	106.5	106.2	106.1
1893 .....	107.9	110.2	107.2	100.0	100.7	101.9	100.5	104.9	105.9	105.6
1894 .....	95.9	99.8	96.1	92.4	90.7	96.3	89.8	100.1	99.8	96.1
1895 .....	93.3	94.6	92.7	98.1	92.0	94.1	87.9	96.5	94.5	93.6
1896 .....	78.3	83.8	91.3	104.3	93.7	93.4	92.6	94.0	91.4	90.4
1897 .....	85.2	87.7	91.1	96.4	86.6	90.4	94.4	89.8	92.1	89.7
1898 .....	96.1	94.4	93.4	95.4	86.4	95.8	106.6	92.0	92.4	93.4
1899 .....	100.0	98.3	96.7	105.0	114.7	105.8	111.3	95.1	97.7	101.7
1900 .....	109.5	104.2	106.8	120.9	120.5	115.7	115.7	106.1	109.8	110.5
1901 .....	116.9	105.9	101.0	119.5	111.9	116.7	115.2	110.9	107.4	108.5
1902 .....	130.5	111.3	102.0	134.3	117.2	118.8	114.2	112.2	114.1	112.9
1903 .....	118.8	107.1	106.6	149.3	117.6	121.4	112.6	113.0	113.6	113.6

In this table the average relative prices of farm products are based on 16 articles; of food, etc., on 53 articles from 1890 to 1892, and 54 from 1893 to 1903; of cloths and clothing, on 70 articles in 1890 and 1891, 72 in 1892, 73 in 1893 and 1894, 75 in 1895 and 1896, and 76 from 1897 to 1903; of fuel and lighting, on 13 articles; of metals and implements, on 37 articles from 1890 to 1893, 38 in 1894 and 1895 and from 1899 to 1903, and 39 from 1896 to 1898; of lumber and building materials, on 26 articles from 1890 to 1894, and 27 from 1895 to 1903; of drugs and chemicals, on 9 articles; of house furnishing goods, on 14 articles; and of miscellaneous, on 13 articles. The average relative prices of all commodities are based on 251 articles in 1890 and 1891, on 253 in 1892, on 255 in 1893, on 256 in 1894, on 259 in 1895, on 260 in 1896 and from 1899 to 1903, and on 261 in 1897 and 1898.

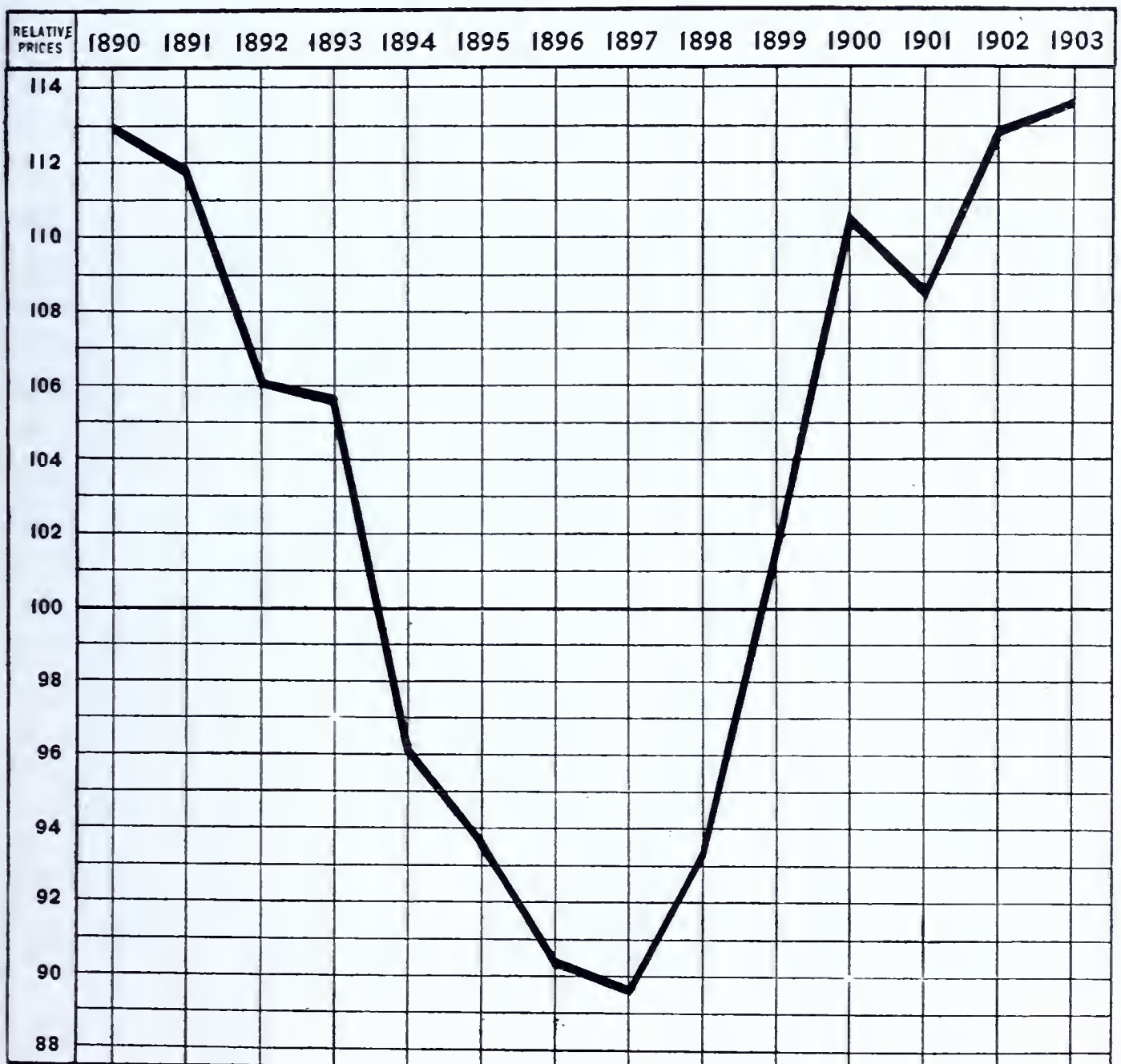
A study of the table shows that the group of farm products reached the lowest average in 1896 and the highest in 1902; that of food, etc., the lowest in 1896 and the highest in 1891; that of cloths and clothing, the lowest in 1897 and the highest in 1890; that of fuel and lighting, the lowest in 1894 and the highest in 1903; that of metals and implements, the lowest in 1898 and the highest in 1900; that of lumber and building materials, the lowest in 1897 and the highest in 1903; that of drugs and chemicals, the lowest in 1895 and the highest in 1900; that of house furnishing goods, the lowest in 1897 and the highest in 1903, while in the miscellaneous group the lowest average was reached in 1896 and the highest in 1902. The average for all commodities combined was the lowest in 1897 and the highest in 1903. Of the nine groups it is seen that one reached its lowest point in 1894, one in 1895, three in 1896, three in 1897, and one in 1898. The highest point was reached by one group in 1890, by one in 1891, by two in 1900, by two in 1902, and by three in 1903.

The average relative prices of the 250 commodities for which quotations were secured for the entire period involved do not differ materially from the average relative prices of all commodities shown in the above table. Eliminating the commodities for which quotations could be secured for only a portion of the period, we find that the average relative prices of the 250 commodities remaining was 112.9 in 1890, 111.7 in 1891, 106.0 in 1892, 105.4 in 1893, 95.9 in 1894, 93.5 in 1895, 90.3 in 1896, 89.6 in 1897, 93.2 in 1898, 101.4 in 1899, 110.1 in 1900, 108.3 in 1901, 112.8 in 1902, and 113.7 in 1903.

The course of wholesale prices during the 14 years 1890 to 1903, as represented by all commodities considered, is shown in the graphic table which follows:

### RELATIVE PRICES OF ALL COMMODITIES, 1890 TO 1903.

(AVERAGE PRICE FOR 1890 TO 1899=100.)





In the table which follows, all commodities under consideration have been divided into two classes or groups. The 50 articles which are included in the group of raw commodities are shown on page 245. All the other articles are classed as manufactured commodities.

RELATIVE PRICES OF RAW COMMODITIES, MANUFACTURED COMMODITIES, AND ALL COMMODITIES, 1890 to 1903.

[Average price for 1890-1899=100.]

Year.	Raw commod- ities.	Manufac- tured commod- ities.	All com- modities.
1890.....	115.0	112.3	112.9
1891.....	116.3	110.6	111.7
1892.....	107.9	105.6	106.1
1893.....	104.4	105.9	105.6
1894.....	93.2	96.8	96.1
1895.....	91.7	94.0	93.6
1896.....	84.0	91.9	90.4
1897.....	87.6	90.1	89.7
1898.....	94.0	93.3	93.4
1899.....	105.9	100.7	101.7
1900.....	111.9	110.2	110.5
1901.....	111.4	107.8	108.5
1902.....	122.4	110.6	112.9
1903.....	122.7	111.5	113.6

In 1890 and 1891, when prices in general were high, the raw commodities were higher than the manufactured, and remained so until 1893, when prices of raw commodities declined and manufactured commodities were slightly above the prices of 1892. From 1894 to 1896 there was a marked decline in both groups, the raw being lower than the manufactured in each of these years. In 1897 raw advanced and manufactured declined. From 1898 to 1900 there was a decided advance in both groups each year, raw advancing to a higher point than manufactured. In 1901 there was a very slight decline in raw and a more marked decline in manufactured. In 1902 both raw and manufactured commodities made a decided advance. In 1903 raw commodities advanced to a point beyond the highest point previously reached in the 14 years under consideration, and manufactured commodities advanced to a level only exceeded by that of one year—1890.

For the 14 years included in this table, with the single exception of 1893, it will be seen that during the years of high prices raw commodities were higher than manufactured, and during the years of low prices, with the exception of 1898, raw were lower than manufactured. This is clearly shown in the graphic table which follows:

RELATIVE PRICES OF RAW AND MANUFACTURED COMMODITIES,  
1890 TO 1903.

(AVERAGE PRICE FOR 1890 TO 1899=100.)





The following table shows for each of the nine general groups the relative prices of 1903 compared with the average for 1890 to 1899. Only the 250 commodities for which quotations were secured for the whole period of 14 years have been included. The average price for 1890 to 1899 is in every case the base or 100 per cent. It should be kept in mind in using this table that the comparison is between the prices for 1903 and the average prices for the base period.

RELATIVE PRICES, 1903 COMPARED WITH AVERAGE PRICE FOR 1890-1899.

[For a more detailed description of the articles see Table I, page 270 et seq.]

Farm products, 16 articles.

Article.	Relative price, 1903.	Article.	Relative price, 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Cattle: steers, choice to extra .....	104.7	Cotton: upland, middling.....	144.7
Wheat: contract grades, cash.....	105.1	Hops: New York State, choice .....	159.5
Cattle: steers, good to choice .....	106.9	PRICE DECREASED.	
Hay: timothy, No. 1 .....	119.2	Sheep: native .....	98.7
Corn: No. 2, cash .....	121.1	Sheep: Western .....	98.0
Barley: by sample .....	121.2	Rye: No. 2, cash.....	97.5
Hides: green, salted, packers, heavy native steers.....	124.8	Flaxseed: No. 1 .....	94.1
Oats: cash .....	131.7	Average for farm products .....	
Hogs: light .....	137.0		118.8
Hogs: heavy .....	137.3		

Food, etc., 53 articles.

PRICE INCREASED.		PRICE INCREASED—concluded.	
Bread: loaf (Washington market).....	100.5	Beans: medium, choice .....	135.5
Flour: wheat, spring patents .....	100.8	Meat: bacon, short clear sides .....	142.1
Rice: domestic, choice .....	100.9	Meat: bacon, short rib sides .....	143.0
Bread: loaf, homemade (N. Y. market) ..	101.0	Meat: pork, salt, mess, old to new .....	143.1
Bread: loaf, Vienna (N. Y. market) .....	101.0	Fish: herring, shore, round .....	151.7
Meat: beef, fresh, native sides.....	101.7	Spices: pepper, Singapore.....	172.1
Salt: Ashton's .....	102.0	PRICE DECREASED.	
Butter: creamery, extra (N. Y. market) ..	104.7	Meat: mutton, dressed .....	98.7
Vegetables, fresh: onions.....	104.9	Sugar: granulated .....	98.2
Fish: cod, dry, bank, large.....	105.0	Fruit: raisins, California, London layer .	96.3
Vegetables, fresh: potatoes, Burbank.....	105.2	Sugar: 96° centrifugal.....	96.1
Butter: creamery, Elgin (Elgin market) ..	106.1	Sugar: 89° fair refining.....	95.0
Butter: dairy, New York State .....	106.2	Flour: rye.....	94.9
Fish: salmon, canned.....	110.0	Flour: wheat, winter straights.....	93.4
Molasses: New Orleans, open kettle, prime.....	112.5	Starch: pure corn .....	92.5
Bread: crackers, Boston X .....	112.6	Bread: crackers, soda.....	90.0
Milk: fresh .....	112.9	Vinegar: cider, Monarch.....	88.0
Meat: beef, salt, extra mess .....	113.1	Salt: American.....	87.2
Meat: beef, salt, hams, Western.....	117.2	Fruit: apples, sun-dried, Southern, sliced .	83.9
Tallow.....	117.2	Tea: Formosa, fine .....	80.9
Flour: buckwheat.....	119.5	Fruit: apples, evaporated, choice.....	72.1
Eggs: new-laid, fancy, near-by.....	123.2	Spices: nutmegs.....	66.6
Cheese: New York State, full cream.....	123.3	Fruit: prunes, California, in boxes .....	62.1
Fish: mackerel, salt, large No. 3s.....	123.5	Soda; bicarbonate of, American .....	61.7
Meal: corn, fine white.....	123.7	Coffee: Rio No. 7 .....	42.6
Meal: corn, fine yellow.....	125.7	Average for food, etc.....	
Fruit: currants, in barrels.....	126.9		106.6
Meat: hams, smoked .....	129.2		
Lard: prime contract .....	134.1		

RELATIVE PRICES, 1903 COMPARED WITH AVERAGE PRICE FOR 1890-1899—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

*Cloths and clothing, 70 articles.*

Article.	Relative price, 1903.	Article.	Relative price, 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Ginghams: Lancaster.....	100.3	Flannels: white, 4-4, Ballard Vale No. 3.	114.3
Underwear: shirts and drawers, white, all wool, full-fashioned, 18-gauge.....	100.4	Leather: harness, oak .....	114.3
Women's dress goods: cashmere, cotton warp, 27-inch, Hamilton.....	101.2	Women's dress goods: cashmere, all wool, 10-11 twill, 38-inch, Atlantic Mills J....	114.3
Women's dress goods: alpaca, cotton warp, 22-inch, Hamilton.....	101.5	Women's dress goods: Franklin sackings, 6-4.....	114.5
Sheetings: brown, 4-4, Stark A. A. (a) ...	101.9	Sheetings: brown, 4-4, Atlantic A .....	115.0
Wool: Ohio, medium fleece ( $\frac{1}{4}$ and $\frac{3}{8}$ -grade) scoured .....	102.1	Worsted yarns: 2-40s, Australian fine ....	115.6
Shirtings: bleached, 4-4, Wamsutta $\begin{smallmatrix} < o > \\ X X \end{smallmatrix}$ ..	102.7	Sheetings: bleached, 10-4, Atlantic.....	115.7
Silk: raw, Japan, filatures.....	102.9	Cotton yarns: carded, white, mule-spun, Northern, cones, 10/1.....	116.2
Sheetings: bleached, 10-4, Wamsutta S.T.	103.0	Leather: sole, hemlock, nonacid, Buenos Ayres, middle weights, 1st quality ....	116.9
Overcoatings: chinchilla, B-rough, all wool .....	103.1	Overcoatings: beaver, Moscow, all wool, black .....	117.3
Ginghams: Amoskeag .....	103.2	Horse blankets: 6 pounds each, all wool.	117.8
Shirtings: bleached, 4-4, Lonsdale.....	103.9	Blankets: 11-4, 5 pounds to the pair, cotton warp, cotton and wool filling.....	117.9
Cotton flannels: 2 $\frac{1}{4}$ yards to the pound...	104.1	Wool: Ohio, fine fleece (X and XX grade), scoured .....	118.5
Tickings: Amoskeag A. C. A.....	104.1	Cotton thread: 6-cord, 200-yard spools, J. & P. Coats .....	120.1
Bags: 2-bushel, Amoskeag .....	104.2	Worsted yarns: 2-40s, XXX or its equivalent in quality, white, in skeins (c)...	120.4
Leather: wax calf, 30 to 40 pounds to the dozen, B grade.....	105.4	Sheetings: bleached, 10-4, Pepperell ....	120.8
Shirtings: bleached, 4-4, Fruit of the Loom .....	105.4	PRICE DECREASED.	
Silk: raw, Italian, classical .....	106.3	Boots and shoes: men's calf bal. shoes, Goodyear welt, dongola top .....	98.9
Shawls: standard, all wool, 72 x 144 inch, 42-ounce, made of high-grade wool....	107.0	Linen thread: 3-cord, 200-yard spools, Barbour.....	98.2
Shirtings: bleached, 4-4, Hope .....	107.1	Women's dress goods: cashmere, cotton warp, 22-inch, Hamilton.....	97.8
Denims: Amoskeag .....	108.0	Shirtings: bleached, 4-4, New York Mills.	97.0
Carpets: ingrain, 2-ply, Lowell .....	108.1	Linen shoe thread: 10s, Barbour.....	96.7
Drillings: brown, Pepperell .....	108.2	Underwear: shirts and drawers, white, merino, full-fashioned, 52 per cent wool, 48 per cent cotton, 24-gauge (d) ..	95.4
Boots and shoes: women's solid grain shoes, leather, polish or polka .....	108.6	Overcoatings: covert cloth, light weight, staple goods.....	94.0
Carpets: Brussels, 5-frame, Bigelow ....	108.7	Boots and shoes: men's brogans, split ...	93.5
Sheetings: brown, 4-4, Pepperell R .....	108.7	Overcoatings: chinchilla, cotton warp, C. C. grade.....	92.8
Sheetings: brown, 4-4, Indian Head.....	108.8	Calico: Cocheco prints.....	91.1
Suitings: indigo blue, all wool, 54-inch, 14-ounce, Middlesex standard .....	108.8	Hosiery: men's cotton half hose, seamless, standard quality, 84 needles.....	90.0
Carpets: Wilton, 5-frame, Bigelow.....	108.9	Boots and shoes: men's vici kid shoes, Goodyear welt.....	87.0
Cotton flannels: 3 $\frac{1}{2}$ yards to the pound ..	109.4	Hosiery: women's cotton hose, seamless, fast black, 26 to 28 ounce, 160 to 176 needles.....	86.8
Cotton yarns: carded, white, mule-spun, Northern, cones, 22/1.....	109.5	Hosiery: men's cotton half hose, seamless, fast black, 20 to 22 ounce, 160 needles .....	82.1
Blankets: 11-4, 5 pounds to the pair, all wool .....	110.1	Average for cloths and clothing...	
Broadcloths: first quality, black, 54-inch, made from XXX wool.....	110.3		106.3
Women's dress goods: cashmere, cotton warp, 9-twill, 4-4, Atlantic Mills F....	110.5		
Leather: sole, oak .....	111.3		
Drillings: 30-inch, Stark A.....	111.5		
Suitings: indigo blue, all wool, 16-ounce.	112.6		
Boots and shoes: men's split boots, kip top, 16-inch, $\frac{1}{2}$ double sole (b) .....	113.1		
Print cloths: 28-inch, 64 x 64 .....	113.3		
Blankets: 11-4, 5 pounds to the pair, cotton warp, all-wool filling .....	114.2		

<sup>a</sup> In 1902 and 1903 quotations are for Massachusetts Mills, Flying Horse brand.<sup>b</sup> In 1903, russet bound top, 17-inch,  $\frac{1}{2}$  double sole.<sup>c</sup> In 1902 and 1903 designated as XXXX.<sup>d</sup> In 1903, 60 per cent wool, 40 per cent cotton.



RELATIVE PRICES, 1903 COMPARED WITH AVERAGE PRICE FOR 1890-1899—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

Fuel and lighting, 13 articles.

Article.	Relative price, 1903.	Article.	Relative price, 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Coal: anthracite, broken .....	126.2	Coke: Connellsville, furnace.....	171.5
Coal: anthracite, stove.....	127.1	Petroleum: crude .....	174.5
Candles: adamantine, 6s, 14-ounce .....	127.4	Coal: bituminous, Georges Creek (at mine) .....	269.6
Petroleum: refined, for export .....	132.5	PRICE DECREASED.	
Coal: anthracite, chestnut.....	134.2	Matches: parlor, domestic .....	85.4
Coal: anthracite, egg .....	134.3		
Coal: bituminous, Pittsburg (Youghiogheny) .....	143.9	Average for fuel and lighting.....	
Petroleum: refined, 150° fire test, w. w....	153.1	149.3	
Coal: bituminous, Georges Creek (f.o. b., New York Harbor) .....	161.8		

Metals and implements, 36 articles.

PRICE SAME AS BASE.		PRICE INCREASED—concluded.	
Saws; crosscut, Disston .....	100.0	Files: 8-inch mill bastard .....	122.1
Trowels: M. C. O., brick, 10½-inch.....	100.0	Spelter: Western .....	123.5
PRICE INCREASED.		Butts: loose joint, cast, 3 x 3 inch .....	126.6
Shovels: Ames No. 2 .....	102.0	Hammers: Maydole No. 1½ .....	129.0
Copper wire: bare.....	102.3	Steel billets .....	129.7
Steel rails .....	107.4	Doorknobs: steel, bronze plated.....	132.6
Axes: M. C. O., Yankee .....	107.6	Vises: solid box, 50-lb .....	132.7
Lead pipe.....	107.8	Pig iron: foundry No. 1.....	134.5
Barb wire: galvanized .....	108.4	Pig iron: Bessemer.....	137.7
Locks: common mortise.....	110.2	Augers: extra, ¾-inch.....	143.7
Copper: ingot, lake .....	110.9	Pig iron: gray forge, Southern, coke.....	146.4
Lead: pig .....	112.3	Pig iron: foundry No. 2.....	146.6
Zinc: sheet.....	113.3	Chisels: extra, socket firmer, 1-inch.....	147.8
Quicksilver .....	113.4	Tin: pig .....	153.4
Copper: sheet, hot-rolled (base sizes) ....	115.6	PRICE DECREASED.	
Planes: Bailey No. 5.....	115.7	Saws: hand, Disston No. 7 .....	98.6
Nails: cut, 8-penny, fence and common..	120.2	Nails: wire, 8-penny, fence and common..	96.0
Bar iron: best refined, from store (Philadelphia market) .....	122.0	Silver: bar, fine.....	72.4
Bar iron: best refined, from mill (Pittsburg market) .....	122.1	Wood screws: 1-inch, No. 10, flat head ...	72.4
		Average for metals and implements	
		117.7	

Lumber and building materials, 26 articles.

PRICE INCREASED.		PRICE INCREASED—concluded.	
Cement: Rosendale.....	100.3	Doors: pine.....	158.2
Brick: common domestic.....	106.2	Poplar.....	158.3
Carbonate of lead: American, in oil.....	106.6	Turpentine: spirits of .....	171.0
Pine: yellow.....	113.7	Pine: white, boards, uppers.....	171.8
Oxide of zinc .....	115.8	PRICE DECREASED.	
Window glass: American, single, thirds, 6 x 8 to 10 x 15 inch.....	118.7	Lime: common.....	94.5
Maple: hard .....	119.5	Linseed oil: raw .....	91.9
Oak: white, plain.....	119.8	Shingles: cypress .....	91.0
Window glass: American, single, firsts, 6 x 8 to 10 x 15 inch .....	122.7	Putty .....	89.2
Shingles: white pine .....	125.1	Plate glass: polished, unsilvered, area 5 to 10 square feet .....	83.1
Spruce .....	133.7	Plate glass: polished, unsilvered, area 3 to 5 square feet.....	72.3
Oak: white, quartered.....	139.3	Average for lumber and building materials.....	
Tar .....	139.4	122.2	
Pine: white, boards, No. 2 barn.....	140.3		
Hemlock.....	140.4		
Resin: good, strained.....	153.9		

RELATIVE PRICES, 1903 COMPARED WITH AVERAGE PRICE FOR 1890-1899—Concluded.

[For a more detailed description of the articles see Table I, page 270 et seq.]

*Drugs and chemicals, 9 articles.*

Article.	Relative price, 1903.	Article.	Relative price, 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Quinine: American.....	102.6	Muriatic acid: 20°.....	153.8
Glycerin: refined.....	103.4	PRICE DECREASED.	
Alum: lump.....	103.6		
Alcohol: grain, 94 per cent.....	106.9		
Brimstone: crude, seconds.....	107.9	Alcohol: wood, refined, 95 per cent.....	62.0
Opium: natural, in cases.....	130.6		
Sulphuric acid: 66°.....	142.7	Average for drugs and chemicals..	112.6

*House furnishing goods, 14 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Table cutlery: knives and forks, coco-bolo handles.....	107.3	Glassware: nappies, 4-inch.....	125.0
Earthenware: teacups and saucers, white granite.....	107.4	Furniture: chairs, bedroom, maple.....	127.8
Wooden ware: tubs, oak-grained.....	107.6	Furniture: chairs, kitchen.....	130.7
Furniture: tables, kitchen.....	108.1	PRICE DECREASED.	
Glassware: pitchers, $\frac{1}{2}$ -gallon, common..	110.6		
Earthenware: plates, white granite.....	111.4	Glassware: tumblers, $\frac{1}{2}$ -pint, common....	99.5
Furniture: bedroom sets, ash.....	115.3	Table cutlery: carvers, stag handles.....	93.8
Earthenware: plates, cream-colored.....	115.4		
Wooden ware: pails, oak-grained.....	122.2	Average for house furnishing goods..	113.0

*Miscellaneous, 13 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Malt: Western made.....	103.1	Jute: raw.....	129.2
Proof spirits.....	111.4	Cotton-seed oil: summer yellow, prime...	130.7
Tobacco: smoking, granulated, Seal of North Carolina.....	112.0	PRICE DECREASED.	
Rubber: Para Island.....	113.1		
Tobacco: plug, Horseshoe.....	113.6	Paper: wrapping, manila.....	95.1
Soap: castile, mottled, pure.....	115.6	Paper: news.....	84.6
Cotton-seed meal.....	121.6		
Rope: manila.....	122.7	Average for miscellaneous.....	113.6
Starch: laundry.....	123.9		

The farm products group was 18.8 per cent higher in 1903 than the average price for the ten years, 1890 to 1899, only 4 of the 16 articles being lower in 1903 than the average price for 1890 to 1899.

The 1903 price, compared with the average price for 1890 to 1899, shows hops to be 59.5 per cent above; cotton, 44.7 per cent above; heavy hogs, 37.3 per cent above; light hogs, 37 per cent above; oats, 31.7 per cent above; hides, 24.8 per cent above; barley, 21.2 per cent above; corn, 21.1 per cent above, etc. Flaxseed in 1903 was 5.9 per cent below the average price for 1890 to 1899; rye, 2.5 per cent below; sheep, Western, 2 per cent below, and sheep, native, 1.3 per cent below.



Considering the articles shown in this table, it is seen that the food group was 6.6 per cent higher in 1903 than the average price for 1890 to 1899. Thirty-five of the 53 articles considered in this table were higher and 18 lower than the average price for 1890 to 1899.

In 1903 pepper was 72.1 per cent above the average price for 1890 to 1899; herring, 51.7 per cent above; mess pork, 43.1 per cent above; bacon, short rib sides, 43 per cent above; bacon, short clear sides, 42.1 per cent above; beans, 35.5 per cent above; lard, 34.1 per cent above; smoked hams, 29.2 per cent above; currants, 26.9 per cent above; yellow corn meal, 25.7 per cent above; white corn meal, 23.7 per cent above; mackerel, 23.5 per cent above, etc. Coffee was 57.4 per cent below the average price for 1890 to 1899; winter wheat flour, 6.6 per cent below; granulated sugar, 1.8 per cent below, etc.

Of the 70 articles considered in the cloths and clothing group 56 were in 1903 above and 14 below the average price for 1890 to 1899.

In 1903 bleached sheetings, 10-4, Pepperell, were 20.8 per cent above the average price for 1890 to 1899; worsted yarns, XXX, were 20.4 per cent above; cotton thread, 20.1 per cent above; Ohio fine fleece wool, 18.5 per cent above, etc.

Men's hose, 160 needles, were 17.9 per cent below the average price for 1890 to 1899; women's hosiery, 160 to 176 needles, 13.2 per cent below; men's vici kid shoes, 13 per cent below, etc.

Of the 13 articles included in the fuel and lighting group in 1903, only one article, matches, was below the average price for 1890 to 1899. The average price for the group was 49.3 per cent above the average for 1890 to 1899.

Georges Creek coal at the mine was 169.6 per cent above the average price for 1890 to 1899; this relative price is based on the open market price of the coal. Crude petroleum was 74.5 per cent above the average price for 1890 to 1899. The contract price of Connells-ville coke was 71.5 per cent above the average price for 1890 to 1899. Georges Creek bituminous coal, f. o. b. New York Harbor, was 61.8 per cent above the average price for 1890 to 1899; 150° refined petroleum, 53.1 per cent above; Pittsburg bituminous coal, 43.9 per cent above; anthracite coal, egg size, 34.3 per cent above; chestnut size, 34.2 per cent above, etc.

Thirty-six articles are considered in the metals and implements group. Two were the same price in 1903, 30 were above, and 4 were below the average price for 1890 to 1899. Pig tin was 53.4 per cent above the average for 1890 to 1899; chisels, 47.8 per cent above; pig iron, foundry No. 2, 46.6 per cent above; gray forge, Southern, 46.4 per cent above; Bessemer, 37.7 per cent above; foundry No. 1, 34.5 per cent above; steel billets 29.7 per cent above, etc.

Wood screws and bar silver were each 27.6 per cent below the average for 1890 to 1899; wire nails were 4 per cent below, and Disston No. 7 hand saws, 1.4 per cent below.

Of the 26 articles considered in the lumber and building materials group, 20 were above and 6 were below the average price for 1890 to 1899. White pine boards, uppers, were 71.8 per cent above the average price for 1890 to 1899; spirits of turpentine, 71 per cent above; poplar, 58.3 per cent above; pine doors, 58.2 per cent above, etc. Plate glass, area 3 to 5 square feet, was 27.7 per cent below the average price for 1890 to 1899; plate glass, area 5 to 10 square feet, 16.9 per cent below; putty, 10.8 per cent below, etc.

Nine articles are included in the group of drugs and chemicals, and only one, wood alcohol, shows the 1903 price lower than the average price for 1890 to 1899.

Of the 14 articles in the group of house furnishing goods, the 1903 price of 12 articles was above the average price for 1890 to 1899, and the price of 2 articles was below that average.

Thirteen articles are included in the miscellaneous group, and prices of only 2 of that number were in 1903 below the average price for 1890 to 1899.

The facts presented in the foregoing table are summarized in the following, which shows the changes in prices of articles in each group, classified by per cent of change:

CHANGES IN PRICES OF ARTICLES IN EACH GROUP, CLASSIFIED BY PER CENT OF CHANGE, 1903 COMPARED WITH AVERAGE PRICE FOR 1890-1899.

Groups.	Num-ber of arti-cles.	Price increased.					Price same as base.	Price decreased.			
		100 per cent or more.	50 to 100 per cent.	25 to 50 per cent.	10 to 25 per cent.	Less than 10 per cent.		Less than 10 per cent.	10 to 25 per cent.	25 to 50 per cent.	50 per cent or more.
Farm products .....	16	.....	1	4	4	3	.....	4	.....	.....	.....
Food, etc .....	53	.....	2	8	12	13	.....	8	5	4	1
Cloths and clothing .....	70	.....	.....	.....	25	31	.....	10	4	.....	.....
Fuel and lighting .....	13	1	4	7	.....	.....	.....	.....	1	.....	.....
Metals and implements .....	36	.....	1	11	12	6	2	2	.....	2	.....
Lumber and building mate-rials .....	26	.....	5	6	6	3	.....	3	2	1	.....
Drugs and chemicals .....	9	.....	1	2	.....	5	.....	.....	.....	1	.....
House furnishing goods .....	14	.....	.....	3	5	4	.....	2	.....	.....	.....
Miscellaneous .....	13	.....	.....	2	8	1	.....	1	1	.....	.....
Total .....	250	1	14	43	72	66	2	30	13	8	1

It is seen in the above comparison of the prices of 1903 with the average for 1890 to 1899 that of the 16 articles in the farm products group, 12 show an increase and 4 a decrease; of the 53 in the food, etc., group, 35 show an increase and 18 a decrease; of the 70 in the cloths and clothing group, 56 show an increase and 14 show a decrease; of the 13 in the fuel and lighting group, 12 show an increase and 1 a



decrease; of the 36 in the metals and implements group, 30 show an increase, 2 show the same price as the average for the base period, and 4 show a decrease; of the 26 in the lumber and building materials group, 20 show an increase and 6 a decrease; of the 9 in the drugs and chemicals group, 8 show an increase and 1 a decrease; of the 14 in the house furnishing goods group, 12 show an increase and 2 a decrease; of the 13 in the miscellaneous group, 11 show an increase and 2 a decrease. Of the 250 commodities, for which prices were secured for the whole period from 1890 to 1903, 196 show an increase, 2 show the same price as the average for the base period, and 52 show a decrease.

The number of articles according to classified per cents of increase and decrease is also shown in this table. Of the 196 commodities that showed an increase in 1903 over the average for 1890 to 1899, 66 advanced less than 10 per cent, 72 advanced from 10 to 25 per cent, 43 advanced from 25 to 50 per cent, 14 advanced from 50 to 100 per cent, and 1 advanced 100 per cent or more. Of the 52 commodities which showed a decrease, 30 decreased less than 10 per cent, 13 decreased from 10 to 25 per cent, 8 decreased from 25 to 50 per cent, and 1 decreased 50 per cent or more.

The number and per cent of articles which showed each specified increase or decrease are given in the following table:

NUMBER AND PER CENT OF ARTICLES, BY CLASSIFIED PER CENT OF INCREASE OR DECREASE, 1903, COMPARED WITH AVERAGE PRICE FOR 1890-1899.

	Number of articles.	Per cent of articles.		Number of articles.	Per cent of articles.
Price increased:			Price decreased:		
100 per cent or more.....	1	0.4	Less than 10 per cent.....	30	12.0
50 to 100 per cent.....	14	5.6	10 to 25 per cent.....	13	5.2
25 to 50 per cent.....	43	17.2	25 to 50 per cent.....	8	3.2
10 to 25 per cent.....	72	28.8	50 per cent or more.....	1	.4
Less than 10 per cent.....	66	26.4			
Total.....	196	78.4	Total.....	52	20.8
Price same as base.....	2	.8	Grand total.....	250	100.0

Of the 250 articles for which prices were secured for the whole period from 1890 to 1903, it is seen that 196, or 78.4 per cent, show an increase in price; 2 articles, or 0.8 per cent, show the same price as the average for the base period, and 52 articles, or 20.8 per cent, show a decrease in price in 1903, as compared with the average price for the base period.

Of the 260 commodities considered in this compilation of prices, the average price of 139 commodities was higher in 1903 than in 1902, the average price of 25 was the same in 1903 as in 1902, and the average price of 96 was lower in 1903 than in 1902.



To assist in making easy a comparison of 1903 prices of the general groups and of all commodities with prices of the other years, the following table has been prepared, showing the per cent of increase of 1903 prices over the prices of each year from 1890 to 1902.

PER CENT OF INCREASE IN WHOLESALE PRICES OF THE GENERAL GROUPS OF COMMODITIES IN 1903 OVER PRICES IN PREVIOUS YEARS.

Groups.	Per cent of increase in 1903 over —												
	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Farm products.....	8.0	α2.2	6.4	10.1	23.9	27.3	51.7	39.4	23.6	18.8	8.5	1.6	α9.0
Food, etc.....	α4.7	α7.4	3.4	α2.8	7.3	13.2	27.8	22.1	13.5	9.0	2.8	1.1	α3.8
Cloths and clothing..	α6.1	α4.2	α2.2	α.6	10.9	15.0	16.8	17.0	14.1	10.2	α.2	5.5	4.5
Fuel and lighting..	42.6	45.4	47.7	49.3	61.6	52.2	43.1	54.9	56.5	42.2	23.5	24.9	11.2
Metals and imple- ments.....	α1.3	5.3	10.9	16.8	29.7	27.8	25.5	35.8	36.1	2.5	α2.4	5.1	.3
Lumber and build- ing materials.....	8.6	12.0	18.1	19.1	26.1	29.0	30.0	34.3	26.7	14.7	4.9	4.0	2.2
Drugs and chemi- cals.....	2.2	8.7	9.4	12.0	25.4	28.1	21.6	19.3	5.6	1.2	α2.7	α2.3	α1.4
House furnishing goods.....	1.7	2.5	6.1	7.7	12.9	17.1	20.2	25.8	22.8	18.8	6.5	1.9	.7
Miscellaneous.....	3.0	3.8	7.0	7.3	13.8	20.2	24.3	23.3	22.9	16.3	3.5	5.8	α.4
All commodi- ties.....	.6	1.7	7.1	7.6	18.2	21.4	25.7	26.6	21.6	11.7	2.8	4.7	.6

α Decrease.

From this table it is seen that the group farm products in 1903 was 8 per cent higher than in 1890, 2.2 per cent lower than in 1891, 6.4 per cent higher than in 1892, 10.1 per cent higher than in 1893, 23.9 per cent higher than in 1894, 27.3 per cent higher than in 1895, 51.7 per cent higher than in 1896, 39.4 per cent higher than in 1897, 23.6 per cent higher than in 1898, 18.8 per cent higher than in 1899, 8.5 per cent higher than in 1900, 1.6 per cent higher than in 1901, and 9 per cent lower than in 1902.

The average for all commodities combined in 1903 was 0.6 per cent higher than in 1890, 1.7 per cent higher than in 1891, 7.1 per cent higher than in 1892, 7.6 per cent higher than in 1893, 18.2 per cent higher than in 1894, 21.4 per cent higher than in 1895, 25.7 per cent higher than in 1896, 26.6 per cent higher than in 1897, 21.6 per cent higher than in 1898, 11.7 per cent higher than in 1899, 2.8 per cent higher than in 1900, 4.7 per cent higher than in 1901, and 0.6 per cent higher than in 1902.

In the following table the December, 1903, relative price is compared with the average for 1890 to 1899. The average price for 1890 to 1899 is in every case the base or 100 per cent. Only the 250 commodities for which quotations were secured for the whole period of fourteen years have been included. In using this table it must be borne in mind that the comparison is between the prices for December, 1903, and the average prices for the base period.



RELATIVE PRICES, DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR 1890-1899.

[For a more detailed description of the articles see Table I, page 270 et seq.]

Farm products, 16 articles.

Article.	Relative price, Dec., 1903.	Article.	Relative price, Dec., 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Hogs: light .....	101.7	Cotton: upland, middling.....	164.6
Hogs: heavy .....	103.1	Hops: New York State, choice .....	175.0
Cattle: steers, good to choice .....	104.3	PRICE DECREASED.	
Cattle: steers, choice to extra .....	104.5	Rye: No. 2, cash.....	97.7
Hay: timothy, No. 1.....	106.9	Flaxseed: No. 1 .....	84.7
Corn: No. 2, cash .....	110.1	Sheep: native .....	81.4
Wheat: contract grades, cash.....	110.6	Sheep: Western .....	80.3
Hides: green, salted, packers, heavy native steers.....	115.9	Average for farm products .....	
Barley: by sample.....	123.9		112.2
Oats: cash .....	130.7		

Food, etc., 53 articles.

PRICE INCREASED.		PRICE INCREASED—concluded.	
Butter: dairy, New York State.....	100.3	Milk: fresh.....	127.5
Flour: wheat, winter straights .....	100.4	Beans: medium, choice.....	130.2
Bread: loaf (Washington market).....	100.5	Fish: herring, shore, round .....	139.0
Bread: loaf, homemade (N. Y. market) .	101.0	Fruit: currants, in barrels .....	140.0
Bread: loaf, Vienna (N. Y. market).....	101.0	Spices: pepper, Singapore.....	172.0
Salt: Ashton's .....	102.1	Eggs: new-laid, fancy, near-by .....	193.6
Vegetables, fresh: onions.....	103.0	PRICE DECREASED.	
Bread: crackers, Boston X .....	104.0	Flour: rye.....	98.7
Flour: wheat, spring patents.....	104.5	Fruit: raisins, California, London layer..	96.6
Meat: beef, salt, extra mess .....	106.0	Meat: beef, fresh, native sides .....	96.6
Molasses: New Orleans, open kettle, prime.....	106.3	Starch: pure corn .....	93.6
Salt: American .....	106.5	Sugar: 96° centrifugal.....	92.9
Lard: prime contract.....	106.7	Sugar: granulated .....	92.0
Meat: bacon, short clear sides.....	108.4	Tea: Formosa, fine .....	91.6
Meat: bacon, short rib sides.....	108.7	Sugar: 89° fair refining.....	91.2
Butter: creamery, extra (N. Y. market) .	108.8	Bread: crackers, soda .....	90.5
Fish: mackerel, salt, large No. 3s.....	109.7	Vinegar: cider, Monarch .....	88.0
Meal: corn, fine white .....	109.7	Rice: domestic, choice .....	87.0
Tallow .....	111.5	Meat: mutton, dressed .....	84.2
Butter: creamery, Elgin (Elgin market) .	112.9	Fruit: apples, sun-dried, Southern, sliced..	72.8
Meat: hams, smoked .....	113.3	Fruit: apples, evaporated, choice.....	72.4
Meat: pork, salt, mess, old to new .....	114.1	Fruit: prunes, California, in boxes.....	67.8
Fish: salmon, canned .....	117.1	Spices: nutmegs.....	67.1
Flour: buckwheat .....	117.1	Soda: bicarbonate of, American .....	64.6
Meat: beef, salt, hams, Western .....	117.5	Coffec: Rio No. 7 .....	49.5
Meal: corn, fine yellow.....	118.0	Average for food, etc.....	
Fish: cod, dry, bank, large .....	118.6		105.2
Cheese: New York State, full cream.....	121.6		
Vegetables, fresh: potatoes, Burbank....	126.2		

Cloths and clothing, 70 articles.

PRICE INCREASED.		PRICE INCREASED—continued.	
Ginghams: Lancaster.....	100.3	Women's dress goods: alpaca, cotton warp, 22-inch, Hamilton.....	104.6
Women's dress goods: cashmere, cotton warp, 22-inch, Hamilton.....	100.3	Shirtings: bleached, 4-4, Wamsutta <sup>&lt;o&gt;</sup> <sub>xx</sub> .....	105.2
Underwear: shirts and drawers, white, all wool, full-fashioned, 18-gauge.....	100.4	Women's dress goods: cashmere, cotton warp, 27-inch, Hamilton.....	105.4
Shirtings: bleached, 4-4, New York Mills.....	102.3	Wool: Ohio, medium fleece ( <sup>1</sup> / <sub>4</sub> and <sup>3</sup> / <sub>8</sub> grade), scoured .....	106.3
Silk: raw, Italian, classical .....	102.6	Shirtings: bleached, 4-4, Lonsdale.....	106.6
Overcoatings: chinchilla, B-rough, all wool .....	103.1	Sheetings: bleached, 10-4, Wamsutta S.T.....	106.8
Ginghams: Amoskeag .....	103.2		

RELATIVE PRICES, DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR  
1890-1899—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

*Cloths and clothing, 70 articles—Concluded.*

Article.	Relative price, Dec., 1903.	Article.	Relative price, Dec., 1903.	
PRICE INCREASED—continued.		PRICE INCREASED—concluded.		
Leather: sole, oak .....	107.0	Leather: sole, hemlock, nonacid, Buenos Ayres, middle weights, 1st quality.....	118.6	
Leather: wax calf, 30 to 40 pounds to the dozen, B grade.....	107.0	Worsted yarns: 2-40s, XXX or its equivalent in quality, white, in skeins (c) ...	119.2	
Shawls: standard, all wool, 72x144 inch, 42-ounce, made of high-grade wool....	107.0	Cotton flannels: 3½ yards to the pound..	119.7	
Bags: 2-bushel, Amoskeag.....	107.2	Sheeting: brown, 4-4, Indian Head .....	119.8	
Shirtings: bleached, 4-4, Fruit of the Loom .....	108.2	Drillings: 30-inch, Stark A .....	120.0	
Tickings: Amoskeag A. C. A.....	108.4	Print cloths: 28-inch, 64x64.....	120.0	
Suitings: indigo blue, all wool, 54-inch, 14-ounce, Middlesex standard .....	108.8	Cotton thread: 6-cord, 200-yard spools, J. & P. Coats.....	120.1	
Carpets: ingrain, 2-ply, Lowell .....	109.1	Cotton flannels: 2¾ yards to the pound..	120.4	
Boots and shoes: women's solid grain shoes, leather, polish or polka.....	110.0	Sheetings: brown, 4-4, Atlantic A.....	121.7	
Blankets: 11-4, 5 pounds to the pair, all wool .....	110.1	Wool: Ohio, fine fleece (X and XX grade), scoured .....	125.1	
Broadcloths: first quality, black, 54-inch, made from XXX wool.....	110.3	Sheetings: bleached, 10-4, Pepperell.....	127.4	
Carpets: Brussels, 5-frame, Bigelow .....	110.3	Cotton yarns: carded, white, mule-spun, Northern, cones, 10/1.....	127.5	
Leather: harness, oak .....	110.4	PRICE DECREASED.		
Sheetings: brown, 4-4, Stark A. A (a)....	110.4	Calico: Cochecco prints .....	99.5	
Carpets: Wilton, 5-frame, Bigelow.....	110.7	Boots and shoes: men's calf bal. shoes, Goodyear welt, dongola top .....	98.9	
Women's dress goods: Franklin sackings, 6-4.....	110.7	Linen thread: 3-cord, 200-yard spools, Barbour.....	98.2	
Shirtings: bleached, 4-4, Hope.....	111.3	Linen shoe thread: 10s, Barbour.....	96.7	
Suitings: indigo blue, all wool, 16-ounce.	112.6	Underwear: shirts and drawers, white, merino, full-fashioned, 52 per cent wool, 48 per cent cotton, 24-gauge (d)..<	95.4	
Women's dress goods: cashmere, cotton warp, 9-twill, 4-4, Atlantic Mills F.....	112.8	Overcoatings: covert cloth, light weight, staple goods.....	94.0	
Worsted yarns: 2-40s, Australian fine....	112.9	Boots and shoes: men's brogans, split ...	93.5	
Boots and shoes: men's split boots, kip top, 16-inch, ¼ double sole (b).....	113.1	Silk; raw, Japan, filatures .....	92.9	
Sheetings: brown, 4-4, Pepperell R.....	113.4	Hosiery: men's cotton half hose, seamless, standard quality, 84 needles .....	92.4	
Drillings: brown, Pepperell .....	113.6	Overcoatings: chinchilla, cotton warp, C. C. grade.....	90.1	
Blankets: 11-4, 5 pounds to the pair, cotton warp, all wool filling.....	114.2	Boots and shoes: men's vici kid shoes, Goodyear welt .....	87.0	
Denims: Amoskeag.....	114.9	Hosiery: women's cotton hose, seamless, fast black, 26 to 28 ounce, 160 to 176 needles .....	86.8	
Sheetings: bleached, 10-4, Atlantic .....	115.1	Hosiery: men's cotton half hose, seamless, fast black, 20 to 22 ounce, 160 needles .....	82.1	
Cotton yarns: carded, white, mule-spun, Northern, cones, 22/1.....	116.8	Average for cloths and clothing...		108.5
Women's dress goods: cashmere, all wool, 10-11 twill, 38-inch, Atlantic Mills J .....	117.2			
Overcoatings: beaver, Moscow, all wool, black .....	117.3			
Flannels: white, 4-4, Ballard Vale No. 3..	117.6			
Horse blankets: 6 pounds each, all wool.	117.8			
Blankets: 11-4, 5 pounds to the pair, cotton warp, cotton and wool filling.....	117.9			

*Fuel and lighting, 13 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Candles: adamantine, 6s, 14-ounce .....	115.1	Coal: bituminous, Georges Creek (at mine) .....	196.9
Coal: anthracite, broken .....	127.0	Petroleum: crude .....	207.0
Coal: anthracite, stove .....	130.4	PRICE DECREASED.	
Coal: bituminous, Georges Creek (f. o. b. New York Harbor) .....	133.1	Coke: Connellsville, furnace.....	92.7
Coal: anthracite, chestnut .....	137.7	Matches: parlor, domestic .....	85.4
Coal: anthracite, egg.....	137.7	Average for fuel and lighting.....	
Coal: bituminous, Pittsburg (Youghiogheny).....	140.0		139.8
Petroleum: refined, for export .....	146.4		
Petroleum: refined, 150° fire test, w. w..	168.5		

*a* In 1902 and 1903 quotations are for Massachusetts Mills, Flying Horse brand.*b* In 1903, russet bound top, 17-inch, ½ double sole.*c* In 1902 and 1903 designated as XXXX.*d* In 1903, 60 per cent wool, 40 per cent cotton.



RELATIVE PRICES, DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR  
1890-1899—Continued.

[For a more detailed description of the articles see Table I, page 270 et seq.]

*Metals and implements, 36 articles.*

Article.	Relative price, Dec., 1903.	Article.	Relative price, Dec., 1903.
PRICE SAME AS BASE.		PRICE INCREASED—concluded.	
Saws: crosscut, Disston .....	100.0	Vises: solid box, 50-lb .....	117.9
Trowels: M. C. O., brick, 10½-inch .....	100.0	Files: 8-inch mill bastard .....	123.1
PRICE INCREASED.		Butts: loose joint, cast, 3 x 3 inch .....	126.6
Shovels: Ames No. 2 .....	102.0	Hammers: Maydole No. 1½ .....	129.0
Barb wire: galvanized .....	102.9	Doorknobs: steel, bronze plated .....	132.6
Bar iron: best refined, from store (Philadelphia market) .....	104.3	Tin: pig .....	141.1
Pig iron: Bessemer .....	104.5	Augers: extra, ¾-inch .....	143.7
Lead pipe .....	105.8	Chisels: extra, socket firmer, 1-inch .....	147.8
Axes: M. C. O., Yankee .....	106.5	PRICE DECREASED.	
Steel billets .....	106.8	Zinc: sheet .....	99.6
Pig iron: foundry No. 1 .....	107.1	Copper: ingot, lake .....	99.3
Pig iron: foundry No. 2 .....	107.3	Saws: hand, Disston No. 7 .....	98.6
Steel rails .....	107.4	Pig iron: gray forge, Southern, coke .....	98.1
Copper: sheet, hot-rolled (base sizes) .....	108.5	Copper wire: bare .....	97.3
Nails: cut, 8-penny, fence and common .....	109.4	Nails: wire, 8-penny, fence and common .....	92.5
Locks: common mortise .....	110.2	Bar iron: best refined, from mill (Pittsburg market) .....	89.7
Lead: pig .....	111.5	Wood screws: 1-inch, No. 10, flat head .....	76.2
Quicksilver .....	112.6	Silver: bar, fine .....	74.8
Planes: Bailey No. 5 .....	115.7	Average for metals and implements.	
Spelter: Western .....	116.2		109.1

*Lumber and building materials, 26 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Carbonate of lead: American, in oil .....	101.9	Pine: white, boards, uppers .....	171.8
Pine: yellow .....	113.7	Turpentine: spirits of .....	177.2
Oxide of zinc .....	115.8	Resin: good, strained .....	178.8
Oak: white, plain .....	124.2	PRICE DECREASED.	
Maple: hard .....	124.5	Lime: common .....	97.2
Shingles: white pine .....	125.1	Cement: Rosendale .....	95.8
Doors: pine .....	128.1	Shingles: cypress .....	92.2
Brick: common domestic .....	130.3	Linseed oil: raw .....	81.6
Window glass: American, single, thirds, 6x8 to 10x15 inch .....	133.6	Plate glass: polished, unsilvered, area 5 to 10 square feet .....	75.1
Window glass: American, single, firsts, 6x8 to 10x15 inch .....	138.0	Putty .....	71.5
Pine: white, boards, No. 2 barn .....	140.3	Plate glass: polished, unsilvered, area 3 to 5 square feet .....	66.1
Hemlock .....	142.1	Average for lumber and building materials .....	
Spruce .....	142.9		124.5
Tar .....	149.4		
Oak: white, quartered .....	153.7		
Poplar .....	165.0		

*Drugs and chemicals, 9 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Quinine: American .....	101.6	Muriatic acid: 20° .....	153.8
Glycerin: refined .....	101.9	PRICE DECREASED.	
Alum: lump .....	104.8	Alcohol: wood, refined, 95 per cent .....	52.4
Brimstone: crude, seconds .....	106.3	Average for drugs and chemicals ..	
Alcohol: grain, 94 per cent .....	108.9		111.4
Opium: natural, in cases .....	127.1		
Sulphuric acid: 66° .....	146.1		

*House furnishing goods, 14 articles.*

PRICE INCREASED.		PRICE INCREASED—concluded.	
Table cutlery: knives and forks, cocobolo handles .....	107.3	Furniture: chairs, bedroom, maple .....	129.1
Earthenware: teacups and saucers, white granite .....	107.4	Furniture: chairs, kitchen .....	130.7
Wooden ware: tubs, oak-grained .....	107.6	Wooden ware: pails, oak-grained .....	130.9
Furniture: tables, kitchen .....	108.1	PRICE DECREASED.	
Glassware: pitchers, ½-gallon, common ..	110.6	Glassware: tumblers, ¼-pint, common .....	95.8
Earthenware: plates, white granite .....	111.4	Table cutlery: carvers, stag handles .....	93.8
Earthenware: plates, cream-colored .....	115.4	Average for house furnishing goods.	
Furniture: bedroom sets, ash .....	116.1		113.5
Glassware: nappies, 4-inch .....	125.0		

RELATIVE PRICES, DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR  
1890-1899—Concluded.

[For a more detailed description of the articles see Table I, page 270 et seq.]

*Miscellaneous, 13 articles.*

Article.	Relative price, Dec., 1903.	Article.	Relative price, Dec., 1903.
PRICE INCREASED.		PRICE INCREASED—concluded.	
Malt: Western made.....	100.3	Starch: laundry.....	122.1
Cotton-seed oil: summer yellow, prime..	110.1	Rope: manila.....	123.1
Proof spirits.....	110.2	PRICE DECREASED.	
Tobacco: smoking, granulated, Seal of North Carolina.....	112.0	Paper: wrapping, manila .....	96.0
Soap: castile, mottled, pure.....	112.1	Paper: news.....	83.6
Tobacco: plug, Horseshoe .....	113.6	Average for miscellaneous .....	
Rubber: Para Island.....	114.3		110.1
Jute: raw .....	115.0		
Cotton-seed meal.....	119.5		

The farm products group was 12.2 per cent higher in December, 1903, than the average price for the ten years, 1890 to 1899, four of the 16 articles being lower in that month than the average price for 1890 to 1899.

The December, 1903, price, compared with the average price for 1890 to 1899, shows hops 75 per cent above; cotton, 64.6 per cent above; oats, 30.7 per cent above, etc. Western sheep were 19.7 per cent below the average price for 1890 to 1899; native sheep, 18.6 per cent below, etc.

In December, 1903, the food group was 5.2 per cent higher than the average price for the ten years, 1890 to 1899. Eggs were 93.6 per cent above the average price for 1890 to 1899; pepper, 72 per cent above; potatoes, 26.2 per cent above; spring wheat flour, 4.5 per cent above, etc. Coffee was 50.5 per cent below; mutton, 15.8 per cent below, etc.

For the other groups of articles, the reader is referred to the table.

The facts presented in the foregoing table are summarized in the following, which shows the changes in prices of articles in each group, classified by per cent of change:

CHANGES IN PRICES OF ARTICLES IN EACH GROUP, CLASSIFIED BY PER CENT OF CHANGE,  
DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR 1890-1899.

Groups.	Num-ber of arti-cles.	Price increased.					Price same as base.	Price decreased.			
		100 per cent or more.	50 to 100 per cent.	25 to 50 per cent.	10 to 25 per cent.	Less than 10 per cent.		Less than 10 per cent.	10 to 25 per cent.	25 to 50 per cent.	50 per cent or more.
Farm products .....	16	.....	2	1	4	5	.....	1	3	.....	.....
Food, etc .....	53	.....	2	5	10	18	.....	9	3	5	1
Cloths and clothing .....	70	.....	.....	3	33	21	.....	10	3	.....	.....
Fuel and lighting .....	13	1	2	7	1	.....	.....	1	1	.....	.....
Metals and implements .....	36	.....	.....	6	7	12	2	6	2	1	.....
Lumber and building mate-rials .....	26	.....	5	9	4	1	.....	3	2	2	.....
Drugs and chemicals.....	9	.....	1	2	.....	5	.....	.....	.....	1	.....
House furnishing goods.....	14	.....	.....	4	4	4	.....	2	.....	.....	.....
Miscellaneous .....	13	.....	.....	.....	10	1	.....	1	1	.....	.....
Total .....	250	1	12	37	73	67	2	33	15	9	1



It is seen in the above comparison of the prices of December, 1903, with the average for 1890 to 1899, that of the 16 articles in the farm products group, 12 show an increase and 4 a decrease; of the 53 in the food, etc., group, 35 show an increase and 18 a decrease; of the 70 in the cloths and clothing group, 57 show an increase and 13 a decrease; of the 13 in the fuel and lighting group, 11 show an increase and 2 a decrease; of the 36 in the metals and implements group, 25 show an increase, 2 show the same price as the average for the base period, and 9 show a decrease; of the 26 in the lumber and building materials group, 19 show an increase and 7 a decrease; of the 9 in the drugs and chemicals group, 8 show an increase and 1 a decrease; of the 14 in the house furnishing goods group, 12 show an increase and 2 a decrease; of the 13 in the miscellaneous group, 11 show an increase and 2 a decrease. Of the 250 commodities, for which prices were secured for the whole period from 1890 to 1903, 190 show an increase, 2 show the same price as the average for the base period, and 58 show a decrease.

The number of articles according to classified per cents of increase and decrease is also shown in this table. Of the 190 commodities that showed an increase in December, 1903, over the average for 1890 to 1899, 67 advanced less than 10 per cent, 73 advanced from 10 to 25 per cent, 37 advanced from 25 to 50 per cent, 12 advanced from 50 to 100 per cent, and 1 advanced 100 per cent or more. Of the 58 commodities which showed a decrease, 33 decreased less than 10 per cent, 15 decreased from 10 to 25 per cent, 9 decreased from 25 to 50 per cent, and 1 decreased 50 per cent or more.

The number and per cent of articles which showed each specified increase or decrease are given in the following table:

NUMBER AND PER CENT OF ARTICLES, BY CLASSIFIED PER CENT OF INCREASE OR DECREASE, DECEMBER, 1903, COMPARED WITH AVERAGE PRICE FOR 1890-1899.

	Number of articles.	Per cent of articles.		Number of articles.	Per cent of articles.
Price increased:			Price decreased:		
100 per cent or more.....	1	0.4	Less than 10 per cent ....	33	13.2
50 to 100 per cent.....	12	4.8	10 to 25 per cent.....	15	6.0
25 to 50 per cent.....	37	14.8	25 to 50 per cent.....	9	3.6
10 to 25 per cent.....	73	29.2	50 per cent or more.....	1	.4
Less than 10 per cent.....	67	26.8			
Total .....	190	76.0	Total.....	58	23.2
Price same as base.....	2	.8	Grand total .....	250	100.0

Of the 250 articles for which prices were secured for the whole period from 1890 to 1903, it is seen that 190, or 76 per cent, show an increase in price; 2 articles, or 0.8 per cent, show the same price as the average for the base period, and 58 articles, or 23.2 per cent, show a decrease in price in December, 1903, as compared with the average price for the base period.

Of the 260 commodities considered in this compilation of prices, the average price of 111 commodities was higher in December, 1903, than in December, 1902, the average price of 49 was the same in December, 1903, as in December, 1902, and the average price of 100 was lower in December, 1903, than in December, 1902.

The following table shows the relative prices of certain related articles, so grouped as to render easy a comparison of the course of their prices during the year 1903:

## RELATIVE PRICES OF CERTAIN GROUPS OF RELATED ARTICLES IN 1903.

[Average price for 1890-1899=100.]

Month.	Cattle and cattle products.						Dairy products.		
	Cattle.	Beef, fresh.	Beef, hams.	Beef, mess.	Tallow.	Hides.	Milk.	Butter.	Cheese.
Jan....	111.6	116.3	117.5	131.6	136.8	139.9	137.3	124.3	143.2
Feb....	106.2	103.8	114.7	127.9	137.9	132.7	137.3	118.8	145.7
Mar...	106.9	104.2	114.7	123.2	128.7	126.3	129.8	128.8	146.4
Apr....	108.2	106.2	114.7	119.3	125.1	120.6	122.4	119.6	148.2
May...	104.8	104.7	114.7	116.6	120.0	124.4	103.9	99.4	118.1
June...	102.6	100.9	111.4	111.5	114.9	126.6	92.5	98.7	107.7
July...	102.2	98.6	116.1	104.5	107.1	124.7	88.2	91.4	101.9
Aug...	103.8	97.3	121.6	102.9	104.8	121.3	88.2	87.7	101.3
Sept...	107.7	97.9	123.0	102.9	112.2	127.4	101.2	94.1	112.0
Oct....	107.7	98.2	123.0	105.4	106.4	121.0	111.4	95.2	117.1
Nov...	104.0	97.3	118.8	104.5	103.4	115.8	117.6	102.8	118.4
Dec....	104.4	96.6	117.5	106.0	111.5	115.9	127.5	107.3	121.6
1903....	105.8	101.7	117.2	113.1	117.2	124.8	112.9	105.7	123.3

Month.	Hogs and hog products.					Sheep and sheep products.		
	Hogs.	Bacon.	Hams, smoked.	Mess pork.	Lard.	Sheep.	Mutton.	Wool.
Jan....	148.3	149.6	124.2	156.9	158.1	104.6	91.2	108.5
Feb....	157.3	155.3	128.7	155.3	153.7	114.6	99.5	110.2
Mar...	167.9	164.1	133.6	158.8	157.5	130.3	116.7	108.5
Apr....	164.6	163.5	134.6	158.5	154.7	125.4	121.1	106.7
May...	147.0	153.5	132.0	159.0	141.4	123.3	119.4	103.1
June...	137.5	151.3	129.1	157.7	136.9	106.8	113.4	104.9
July...	125.0	140.0	134.0	145.1	120.9	84.1	99.5	112.3
Aug...	126.0	131.0	136.9	133.8	122.8	86.5	88.7	112.3
Sept...	136.0	139.9	136.3	129.6	134.4	77.6	86.9	113.1
Oct....	128.5	133.9	126.3	115.5	112.4	75.3	82.1	113.1
Nov...	106.4	122.0	122.4	115.0	110.9	71.1	79.6	114.8
Dec....	102.4	108.6	113.3	114.1	106.7	80.9	84.2	115.7
1903....	137.2	142.6	129.2	143.1	134.1	98.4	98.7	110.3

Month.	Corn, etc.			Flaxseed, etc.		Rye and rye flour.		Wheat and wheat flour.		Flour, etc.		
	Corn.	Glucose. <sup>(a)</sup>	Meal.	Flaxseed.	Linseed oil.	Rye.	Rye flour.	Wheat.	Wheat flour.	Wheat flour.	Crackers.	Loaf bread.
Jan....	122.2	123.4	136.8	105.6	101.4	92.4	99.5	98.7	90.0	90.0	108.2	100.8
Feb....	114.6	123.4	139.2	106.0	101.4	94.0	97.2	100.4	91.6	91.6	108.2	100.8
Mar...	114.0	130.4	135.6	102.4	101.4	94.9	92.7	97.0	91.3	91.3	108.2	100.8
Apr....	114.3	135.7	113.8	97.9	101.4	95.0	91.2	101.0	90.6	90.6	101.3	100.8
May...	118.0	126.9	107.7	98.4	97.0	94.4	89.7	104.0	93.0	93.0	101.3	100.8
June...	129.3	126.9	123.5	100.2	97.0	96.4	89.7	104.2	97.4	97.4	101.3	100.8
July...	133.8	137.5	128.3	90.3	88.2	95.4	91.9	105.7	98.9	98.9	101.3	100.8
Aug...	136.2	137.5	125.8	85.3	83.8	97.6	91.9	110.7	102.1	102.1	97.3	100.8
Sept...	131.2	137.5	127.2	86.7	81.6	106.1	95.7	113.0	102.5	102.5	97.3	100.8
Oct....	116.8	137.5	121.1	87.4	86.0	103.5	100.2	109.0	102.6	102.6	97.3	100.8
Nov...	112.6	119.9	123.5	84.0	81.6	101.2	100.2	106.2	101.9	101.9	97.3	100.8
Dec....	110.1	119.9	113.9	84.7	81.6	97.7	98.7	110.6	102.5	102.5	97.3	100.8
1903....	121.1	129.7	124.7	94.1	91.9	97.5	94.9	105.1	97.1	97.1	101.3	100.8

<sup>a</sup> Average for 1893-1899=100.



RELATIVE PRICES OF CERTAIN GROUPS OF RELATED ARTICLES IN 1903—Concluded.

[Average price for 1890-1899 = 100.]

Month.	Cotton and cotton goods.									
	Cotton: upland, mid- dling.	Bags: 2-bushel, Amos- keag.	Calico: Cochecho prints.	Cotton flannels.	Cotton thread.	Cotton yarns.	Denims.	Drill- ings.	Ging- hams.	Hosiery.
Jan ....	115.0	100.1	90.4	99.0	120.1	99.5	100.6	104.0	101.8	85.8
Feb....	123.5	100.1	90.4	99.0	120.1	100.8	100.6	103.9	101.8	85.8
Mar....	130.5	103.6	90.4	99.0	120.1	105.7	103.0	102.4	101.8	85.8
Apr....	135.4	103.6	90.4	99.0	120.1	104.9	105.4	103.2	101.8	87.3
May ...	147.2	103.6	90.4	102.9	120.1	110.7	105.4	104.7	101.8	87.3
June...	160.3	103.6	90.4	102.9	120.1	117.2	110.2	110.7	101.8	87.3
July ...	160.4	103.6	90.4	106.9	120.1	122.6	110.2	111.7	101.8	88.1
Aug ...	164.3	103.6	90.4	109.6	120.1	125.0	110.2	115.2	101.8	88.1
Sept ...	158.1	107.2	90.4	112.6	120.1	118.7	110.2	116.6	101.8	90.7
Oct ....	126.4	107.2	90.4	114.3	120.1	112.9	110.2	114.3	101.8	90.7
Nov ...	142.5	107.2	90.4	117.2	120.1	114.4	114.9	114.2	101.8	90.7
Dec....	164.6	107.2	99.5	120.1	120.1	122.2	114.9	116.8	101.8	90.7
1903....	144.7	104.2	91.1	106.8	120.1	112.9	108.0	109.9	101.8	90.1

Month.	Cotton and cotton goods.				Wool and woolen goods.					
	Print cloths.	Sheet- ings.	Shirt- ings.	Tick- ings.	Wool.	Blank- ets (all wool).	Broad- cloths.	Carpets.	Flan- nels.	Horse blank- ets.
Jan ....	108.1	103.9	98.8	99.0	108.5	110.1	110.3	105.7	108.8	117.8
Feb....	114.5	105.1	99.9	99.0	110.2	110.1	110.3	105.7	108.8	117.8
Mar ...	114.5	105.8	99.7	99.0	108.5	110.1	110.3	105.7	111.9	117.8
Apr....	110.7	105.8	100.9	99.0	106.7	110.1	110.3	105.7	111.9	117.8
May ...	108.8	107.4	101.9	99.0	103.1	110.1	110.3	110.0	111.9	117.8
June...	114.0	111.3	101.1	103.7	104.9	110.1	110.3	110.0	111.9	117.8
July ...	113.4	113.1	104.4	108.4	112.3	110.1	110.3	110.0	117.6	117.8
Aug ...	113.6	113.9	104.6	108.4	112.3	110.1	110.3	110.0	117.6	117.8
Sept ...	117.8	114.7	107.2	108.4	113.1	110.1	110.3	110.0	117.6	117.8
Oct ....	112.8	115.2	106.2	108.4	113.1	110.1	110.3	110.0	117.6	117.8
Nov ...	114.0	114.9	107.2	108.4	114.8	110.1	110.3	110.0	117.6	117.8
Dcc....	120.0	116.4	106.7	108.4	115.7	110.1	110.3	110.0	117.6	117.8
1903....	113.3	110.6	103.2	104.1	110.3	110.1	110.3	108.6	114.3	117.8

Month.	Wool and woolen goods.						Hides, leather, and boots and shoes.			Petroleum.	
	Over- coat- ings (all wool).	Shawls.	Suit- ings.	Under- wear (all wool).	Wom- en's dress goods (all wool).	Worst- ed yarns.	Hides.	Leath- er.	Boots and shoes.	Crude.	Re- fined.
Jan ....	110.2	107.0	109.9	100.4	113.3	120.0	139.9	112.4	99.9	167.5	137.0
Feb....	110.2	107.0	109.9	100.4	113.3	120.0	132.7	109.5	99.9	164.8	136.2
Mar ...	110.2	107.0	109.9	100.4	113.3	120.0	126.3	113.6	99.9	164.8	136.2
Apr....	110.2	107.0	109.9	100.4	113.3	120.0	120.6	113.5	99.9	165.9	140.2
May ...	110.2	107.0	109.9	100.4	113.3	118.8	124.4	111.4	99.9	166.4	140.2
June...	110.2	107.0	109.9	100.4	113.3	117.3	126.6	111.4	99.9	164.8	141.7
July ...	110.2	107.0	109.9	100.4	116.3	117.3	124.7	111.0	100.5	167.5	141.7
Aug ...	110.2	107.0	107.7	100.4	116.3	117.3	121.3	114.1	100.5	171.4	141.7
Sept ...	110.2	107.0	107.7	100.4	116.3	117.3	127.4	113.7	100.5	172.8	141.7
Oct ....	110.2	107.0	107.7	100.4	116.3	116.1	121.0	111.5	100.5	185.1	143.7
Nov ...	110.2	107.0	107.7	100.4	114.0	116.1	115.8	111.1	100.5	196.4	155.9
Dec....	110.2	107.0	107.7	100.4	114.0	116.1	115.9	110.8	100.5	207.0	157.5
1903....	110.2	107.0	109.0	100.4	114.4	118.0	124.8	112.0	100.2	174.5	142.8

A study of this table shows that of the 6 articles grouped under cattle and cattle products (cattle, fresh beef, beef hams, mess beef, tallow, and hides), all but tallow were lower in February than in January; March compared with February shows mess beef, tallow, and hides lower, hams the same price, and cattle and fresh beef higher; April compared with March shows mess beef, tallow, and hides lower, hams the same price, and cattle and fresh beef higher; May compared with April shows cattle, fresh beef, mess beef, and tallow lower, hams

the same price, and hides higher; June compared with May shows all the articles lower, except hides, which were higher; July compared with June shows all the articles lower, except hams, which were higher; August compared with July shows fresh beef, mess beef, tallow, and hides lower and cattle and hams higher; September compared with August shows all the articles higher, except mess beef, which was the same price; October compared with September shows tallow and hides lower, cattle and hams the same price, and fresh beef and mess beef higher; November compared with October shows all the articles lower; December compared with November shows fresh beef and hams lower and cattle, mess beef, tallow, and hides higher.

The lowest monthly relative price during 1903 for cattle was 102.2 in July, the highest 111.6 in January; the lowest for fresh beef was 96.6 in December, the highest 116.3 in January; the lowest for beef hams was 111.4 in June, the highest 123 in September and October; the lowest for mess beef was 102.9 in August and September, the highest 131.6 in January; the lowest for tallow was 103.4 in November, the highest 137.9 in February; the lowest for hides was 115.8 in November, the highest 139.9 in January. The facts for the other groups may be seen by reference to the table.

In the following table a similar comparison of the course of prices for the 14-year period, 1890 to 1903, is shown by years:

## RELATIVE PRICES OF CERTAIN GROUPS OF RELATED ARTICLES, 1890 TO 1903.

[Average price for 1890-1899=100.]

Year.	Cattle and cattle products.						Dairy products.		
	Cattle.	Beef, fresh.	Beef, hams.	Beef, mess.	Tallow.	Hides.	Milk.	Butter.	Cheese.
1890....	89.5	89.2	80.4	86.8	105.7	99.6	103.1	100.4	97.1
1891....	109.2	106.2	85.8	104.4	111.0	101.5	104.7	116.1	102.4
1892....	95.4	98.8	80.5	84.8	106.4	92.8	105.1	116.4	107.2
1893....	103.0	105.4	98.6	102.2	125.1	79.9	109.4	121.3	109.0
1894....	96.3	97.0	101.5	101.0	110.3	68.4	103.1	102.2	107.4
1895....	103.7	102.7	95.9	101.4	99.8	109.7	99.2	94.5	94.1
1896....	88.3	90.5	88.1	93.7	78.9	86.6	91.8	82.3	92.0
1897....	99.5	99.7	125.1	95.7	76.3	106.3	92.2	84.1	98.1
1898....	102.2	101.3	118.8	114.2	81.8	122.8	93.7	86.8	83.3
1899....	113.2	108.3	125.6	115.9	104.1	131.8	99.2	95.8	108.9
1900....	111.3	104.3	114.2	121.7	111.5	127.4	107.5	101.7	114.3
1901....	116.6	102.1	112.6	116.3	119.1	132.0	102.7	97.7	102.4
1902....	139.5	125.9	118.0	147.1	144.6	142.8	112.9	112.1	114.1
1903....	105.8	101.7	117.2	113.1	117.2	124.8	112.9	105.7	123.3

Year.	Hogs and hog products.					Sheep and sheep products.		
	Hogs.	Bacon.	Hams, smoked.	Mess pork.	Lard.	Sheep.	Mutton.	Wool.
1890....	89.2	89.3	101.1	104.4	96.8	119.3	123.7	132.1
1891....	99.2	103.7	99.8	97.2	100.9	117.8	114.9	125.8
1892....	115.7	116.6	109.3	99.1	117.9	125.2	121.2	113.2
1893....	148.6	154.7	126.9	157.6	157.5	103.8	106.5	101.6
1894....	112.2	111.8	103.6	121.4	118.2	73.6	80.2	79.1
1895....	96.6	96.3	96.2	101.7	99.8	78.4	82.2	70.1
1896....	78.3	73.1	95.8	76.8	71.7	78.7	82.9	70.6
1897....	82.8	79.9	90.9	76.6	67.4	94.2	96.6	88.7
1898....	85.6	89.4	82.0	84.8	84.4	104.9	98.0	108.3
1899....	91.8	85.8	93.8	80.3	85.0	104.3	94.3	110.8
1900....	115.5	111.5	104.2	107.5	105.5	112.0	96.4	117.7
1901....	134.5	132.3	109.2	134.2	135.3	92.0	89.5	96.6
1902....	155.2	159.3	123.1	154.2	161.9	103.2	97.9	100.8
1903....	137.2	142.6	129.2	143.1	134.1	98.4	98.7	110.3



RELATIVE PRICES OF CERTAIN GROUPS OF RELATED ARTICLES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100.]

Year.	Corn, etc.			Flaxseed, etc.		Rye and rye flour.		Wheat and wheat flour.		Flour, etc.		
	Corn.	Glu-cose. (a)	Meal.	Flax-seed.	Linseed oil.	Rye.	Rye flour.	Wheat.	Wheat flour.	Wheat flour.	Crack-ers.	Loaf bread.
1890....	103.8	.....	100.8	125.5	135.8	103.0	101.4	118.9	120.9	120.9	107.7	100.8
1891....	151.0	.....	142.0	97.1	106.8	157.6	148.3	128.1	125.6	125.6	107.7	100.8
1892....	118.3	.....	114.0	91.4	90.0	127.7	121.1	104.9	104.2	104.2	104.3	100.8
1893....	104.2	124.3	105.8	97.7	102.2	92.6	93.0	90.1	89.3	89.3	100.6	100.8
1894....	113.7	111.4	105.6	121.6	115.6	88.1	83.8	74.4	77.6	77.6	98.8	100.8
1895....	104.0	109.2	103.3	111.8	115.6	91.2	94.5	79.9	84.4	84.4	95.6	98.7
1896....	67.8	81.7	77.4	72.9	81.2	66.5	80.9	85.4	91.2	91.2	94.1	94.4
1897....	66.9	86.0	76.5	78.1	72.2	74.9	84.6	105.8	110.1	110.1	85.3	100.8
1898....	82.6	91.8	83.7	99.8	86.5	93.8	92.9	117.8	109.0	109.0	107.3	100.8
1899....	87.6	95.6	91.2	104.0	94.1	104.4	99.4	94.7	87.9	87.9	99.1	100.8
1900....	100.2	104.9	97.0	145.7	138.7	97.9	103.3	93.7	88.3	88.3	102.7	100.8
1901....	130.6	116.0	115.5	145.8	140.0	100.8	100.1	95.7	87.4	87.4	108.2	100.8
1902....	156.9	153.6	148.2	135.0	130.8	102.5	103.8	98.7	89.7	89.7	108.2	100.8
1903....	121.1	129.7	124.7	94.1	91.9	97.5	94.9	105.1	97.1	97.1	101.3	100.8

Year.	Cotton and cotton goods.									
	Cotton: upland, mid-dling.	Bags: 2-bushel, Amos-keag.	Calico: Cochecho prints.	Cotton flannels.	Cotton thread.	Cotton yarns.	Denims.	Drill-ings.	Ging-hams.	Ho-siery.
1890....	142.9	113.9	117.5	121.8	101.6	111.7	112.5	121.1	119.1	129.7
1891....	110.8	111.7	104.0	121.8	100.7	112.8	109.6	114.6	122.1	122.8
1892....	99.0	110.8	117.5	115.9	100.7	117.0	109.6	102.2	122.1	117.4
1893....	107.2	106.8	113.0	101.4	100.7	110.5	112.5	105.6	114.9	109.4
1894....	90.2	91.1	99.5	95.7	100.7	93.0	105.4	97.1	89.5	100.8
1895....	94.0	82.2	94.9	91.7	100.7	92.1	94.6	93.2	87.0	94.4
1896....	102.0	91.6	94.9	93.9	99.6	93.0	94.6	100.2	88.0	90.5
1897....	92.2	92.9	90.4	88.6	98.4	90.6	89.2	90.4	84.2	86.7
1898....	76.9	95.6	81.4	81.0	98.4	90.8	85.9	86.8	83.1	83.4
1899....	84.7	103.4	87.3	88.0	98.4	88.5	85.8	88.5	89.7	82.5
1900....	123.8	112.6	94.9	101.6	120.1	115.5	102.8	105.0	96.3	87.3
1901....	111.1	101.0	90.4	95.4	120.1	98.3	100.2	102.2	92.3	85.9
1902....	115.1	102.4	90.4	96.1	120.1	94.0	100.6	102.0	99.2	85.2
1903....	144.7	104.2	91.1	106.8	120.1	112.9	108.0	109.9	101.8	90.1

Year.	Cotton and cotton goods.				Wool and woolen goods.					
	Print cloths.	Sheet-ings.	Shirt-ings.	Tick-ings.	Wool.	Blan-kets (all wool).	Broad-cloths.	Carpets.	Flan-nels.	Horse blan-kets.
1890....	117.7	117.6	112.9	113.1	132.1	108.3	113.7	105.3	116.8	109.1
1891....	103.5	112.3	110.2	110.7	125.8	106.0	113.7	112.8	116.8	104.7
1892....	119.3	103.8	107.4	108.4	113.2	107.1	113.7	104.5	115.9	109.1
1893....	114.6	107.7	110.2	111.3	101.6	107.1	113.7	104.5	109.5	104.7
1894....	96.8	95.9	99.9	102.2	79.1	101.2	91.2	98.7	94.1	96.0
1895....	100.9	94.6	97.6	94.8	70.1	89.3	79.7	91.0	81.7	92.5
1896....	90.9	97.4	97.9	96.0	70.6	89.3	79.7	90.2	85.4	90.8
1897....	87.6	91.8	92.0	91.9	88.7	89.3	98.2	93.5	82.6	99.5
1898....	72.6	86.7	83.8	84.3	108.3	107.1	98.2	100.2	97.8	99.5
1899....	96.3	92.2	87.8	87.0	110.8	95.2	98.2	99.4	99.5	94.2
1900....	108.6	105.9	100.4	102.2	117.7	107.1	108.0	102.7	108.7	118.7
1901....	99.3	101.8	98.9	95.5	96.6	101.2	110.3	101.9	100.8	109.9
1902....	108.9	101.4	98.8	99.0	100.8	101.2	110.3	102.5	105.8	109.9
1903....	113.3	110.6	103.2	104.1	110.3	110.1	110.3	108.6	114.3	117.8

a Average for 1893-1899=100.

## RELATIVE PRICES OF CERTAIN GROUPS OF RELATED ARTICLES, 1890 TO 1903—Concluded.

[Average price for 1890-1899=100.]

Year.	Wool and woolen goods.						Hides, leather, and boots and shoes.			Petroleum.	
	Over-coat-ings (all wool).	Shawls.	Suit-ings.	Under-wear (all wool).	Wom-en's dress goods (all wool).	Worst-ed yarns.	Hides.	Leath-er.	Boots and shoes.	Crude.	Re-fined.
1890....	111.9	107.0	113.1	106.2	117.6	122.3	99.6	100.6	104.8	95.4	112.4
1891....	111.9	107.0	113.1	110.0	123.0	123.4	101.5	100.9	103.5	73.6	102.2
1892....	111.9	107.0	113.4	110.0	124.1	117.2	32.8	97.0	102.7	61.1	91.5
1893....	108.6	107.0	112.7	110.0	114.7	109.5	79.9	96.9	100.9	70.3	81.0
1894....	97.5	107.0	98.3	92.7	90.6	91.3	68.4	91.5	99.4	92.2	80.5
1895....	90.8	107.0	89.2	92.7	82.7	74.0	109.7	108.0	98.7	149.2	106.6
1896....	86.7	89.1	87.8	92.7	74.1	72.9	86.6	95.2	99.6	129.5	112.5
1897....	87.8	89.5	88.7	92.7	82.2	82.5	106.3	96.1	97.2	86.5	96.6
1898....	97.1	90.2	103.4	92.7	88.5	100.5	122.8	104.4	96.3	100.2	99.5
1899....	100.6	89.1	106.1	100.4	102.7	106.7	131.8	109.3	96.8	142.1	118.0
1900....	116.1	107.0	115.8	100.4	118.7	118.4	127.4	113.2	99.4	148.5	132.6
1901....	105.3	107.0	104.9	100.4	107.9	102.2	132.0	110.8	99.2	132.9	119.3
1902....	105.3	107.0	105.8	100.4	109.8	111.7	142.8	112.7	98.9	135.9	118.8
1903....	110.2	107.0	109.0	100.4	114.4	118.0	124.8	112.0	100.2	174.5	142.8

This table shows for all of the 6 articles grouped under cattle and cattle products (cattle, fresh beef, beef hams, mess beef, tallow, and hides) an advance in price in 1891, but not in the same degree; in 1892, a decline in all of the articles in this group; in 1893, an increase, except for hides, for which there was a further decline; in 1894, a decline, except for beef hams, which increased; in 1895, an increase, except for beef hams and tallow; in 1896, a decline in all of the articles; in 1897, an increase, except for tallow; in 1898, an increase for all of the articles, except beef hams; in 1899, an increase for all; in 1900, a decline, except for mess beef and tallow; in 1901, an increase for cattle, tallow, and hides, and a decline for fresh beef, beef hams, and mess beef; in 1902, an increase for all, and in 1903 a decrease for all.

For the 14 years from 1890 to 1903 the lowest relative price for cattle was 88.3 in 1896, the highest 139.5 in 1902; the lowest for fresh beef 89.2 in 1890, the highest 125.9 in 1902; the lowest for beef hams 80.4 in 1890, the highest 125.6 in 1899; the lowest for mess beef 84.8 in 1892, the highest 147.1 in 1902; the lowest for tallow 76.3 in 1897, the highest 144.6 in 1902; the lowest for hides 68.4 in 1894, the highest 142.8 in 1902. The facts for the other groups may be seen by reference to the table.

General Tables I, II, III, IV, and V follow.





TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

## FARM PRODUCTS—Continued.

## CORN: No. 2, cash.

[Price per bushel in Chicago on Tuesday of each week; quotations furnished by the secretary of the Chicago Board of Trade.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.46 $\frac{3}{4}$ .47 .47 $\frac{1}{2}$ .45 $\frac{1}{2}$	Apr....	\$0.42 $\frac{1}{2}$ .43 $\frac{1}{2}$ .43 $\frac{3}{4}$ .44 $\frac{1}{2}$	July ...	\$0.52 - \$0.52 $\frac{1}{4}$ .49 $\frac{3}{4}$ - .50 .52	Oct.....	\$0.45 $\frac{1}{2}$ .45 $\frac{1}{4}$ .43 $\frac{1}{2}$ .43 $\frac{3}{4}$
Feb.....	\$0.43- .43 $\frac{3}{4}$ .44 .43 .44	May ...	.44 $\frac{1}{2}$ .44 $\frac{3}{4}$ .45 .45 $\frac{1}{2}$	Aug ...	.52 .53 .51 $\frac{3}{4}$ .50 $\frac{3}{4}$	Nov ....	.43 $\frac{3}{4}$ .43 .41 $\frac{1}{2}$ .42 $\frac{1}{4}$
Mar ....	.45 $\frac{1}{2}$ .45 $\frac{1}{2}$ .42 $\frac{1}{2}$ .41 $\frac{3}{4}$ .42 $\frac{1}{2}$	June...	.47 $\frac{1}{2}$ .48 $\frac{1}{4}$ .49 $\frac{1}{2}$ \$0.50 $\frac{1}{2}$ - .50 $\frac{3}{4}$ .50	Sept ...	.51 $\frac{1}{2}$ - .51 $\frac{3}{4}$ - .52 .52 $\frac{1}{4}$ .47 $\frac{1}{2}$ - .48 .46	Dec ....	.42 $\frac{1}{4}$ .41 .42 .41 $\frac{3}{4}$ .42 $\frac{1}{2}$
						Average	\$0.4606

## COTTON: Upland, middling.

[Price per pound in New York on Tuesday of each week; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$0.0890 .0885 .0895 .0900	Apr....	\$0.1045 .1050 .1035 .1075	July ...	\$0.1160 .1220 .1275 .1325	Oct.....	\$0.0950 .0960 .0980 .1035
Feb.....	.0900 .0950 .0980 .1005	May ...	.1085 .1130 .1185 .1170	Aug ...	.1275 .1275 .1275 .1275	Nov ....	.1050 .1115 .1130 .1130
Mar ....	.1045 .1010 .1000 .1015 .0995	June...	.1150 .1240 .1240 .1290 .1300	Sept ...	.1275 .1225 .1175 .1160 .1300	Dec ....	.1195 .1250 .1245 .1330 .1370
						Average	\$0.1123

## FLAXSEED: No. 1.

[Price per bushel in Chicago on the first of each month; quotations furnished by the secretary of the Chicago Board of Trade.]

Jan.....	\$1.14-\$1.21	Apr....	\$1.08-\$1.10	July ...	\$0.99-\$1.02	Oct.....	\$0.94 $\frac{1}{2}$ -\$1.00
Feb.....	1.16- 1.20	May ...	1.08- 1.11	Aug ...	.93- .97	Nov ....	.91 - .96
Mar ....	1.12- 1.16	June...	1.10- 1.13	Sept ...	.94- .99	Dec ....	.91 - .97 $\frac{1}{4}$
						Average	\$1.0471

## HAY: Timothy, No. 1.

[Price per ton in Chicago on Tuesday of each week; quotations from the Daily Inter Ocean.]

Jan....	\$12.00-\$13.00 12.00- 13.00 12.00- 13.00 12.00- 13.00	Apr....	\$13.50-\$14.50 13.50- 14.50 13.50- 14.50 13.50- 14.50	July ...	\$13.00-\$13.50 13.00- 13.50 13.00- 13.50 13.00- 13.50	Oct.....	\$11.00-\$11.50 11.00- 11.50 11.00- 11.50 10.50- 11.00
Feb.....	12.00- 12.50 12.00- 12.50 12.00- 13.00 12.00- 13.00	May ...	14.00- 15.00 13.50- 14.00 13.50- 14.00 13.50- 14.00	Aug ...	13.00- 13.50 13.00- 13.50 11.00- 13.50 11.00- 13.50	Nov ....	10.00- 11.00 10.00- 11.00 10.00- 11.00 10.50- 11.50
Mar ....	12.00- 13.00 12.00- 13.00 12.50- 13.50 13.00- 13.50 13.00- 13.50	June...	13.50- 14.00 14.50- 15.00 14.50- 15.00 13.00- 13.50 13.00- 13.50	Sept ...	11.50- 12.00 10.00- 11.00 10.00- 11.00 10.00- 11.00 10.00- 11.50	Dec ...	11.50- 12.00 11.50- 12.00 10.50- 11.50 10.50- 11.00 10.00- 11.00
						Average	\$12.4279











TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

FOOD, ETC.—Continued.

**BREAD: Crackers, soda, N. B. C. in boxes.**

[Price per pound in New York on the first of each month; quotations from the Merchants' Review.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.07	Apr....	\$0.06	July ...	\$0.06	Oct.....	\$0.06 $\frac{1}{2}$
Feb.....	.07	May ...	.06	Aug ...	.06 $\frac{1}{3}$	Nov....	.06 $\frac{1}{3}$
Mar ....	.07	June...	.06	Sept ...	.06 $\frac{1}{3}$	Dec ....	.06 $\frac{1}{3}$
						Average	\$0.0646

**BREAD:** Loaf, 1 pound after baking.

[Price per loaf in Washington, D. C., on the first of each month.]

Jan.....	\$0.04	Apr....	\$0.04	July ...	\$0.04	Oct.....	\$0.04
Feb.....	.04	May ...	.04	Aug ...	.04	Nov....	.04
Mar.....	.04	June...	.04	Sept ...	.04	Dec ....	.04
			.			Average	\$0.04

**BREAD:** Loaf, homemade, 1 pound and 3 ounces before baking.

[Price per loaf in New York on the first of each month. Standard weight and standard prices charged by the Bakers' Association, which includes leading bread manufacturers in New York, Brooklyn, and one or two in New Jersey who deliver their bread in Manhattan. Quotations furnished by Emil Braun.]

Jan.....	\$0.04	Apr....	\$0.04	July ...	\$0.04	Oct.....	\$0.04
Feb.....	.04	May...	.04	Aug ...	.04	Nov ....	.04
Mar ....	.04	June..	.04	Sept ...	.04	Dec ....	.04
						Average	<div></div> \$0.04

**BREAD:** Loaf, Vienna, 1 pound and 2 ounces before baking.

[Price per loaf in New York on the first of each month. Standard weight and standard prices charged by the Bakers' Association, which includes leading bread manufacturers in New York, Brooklyn, and one or two in New Jersey who deliver their bread in Manhattan. Quotations furnished by Emil Braun.]

[illegible]

**BUTTER:** Creamery, Elgin.

[Price per pound in Elgin, Ill., on Monday of each week: quotations furnished by D. W. Willson, editor of the Elgin Dairy Report.]

Jan.....	\$0.29	Apr....	\$0.28 $\frac{1}{2}$	July ...	\$0.20	Oct.....	\$0.20 $\frac{1}{2}$
	.28		.27 $\frac{1}{2}$		.20		.20 $\frac{1}{2}$
	.27		.25		.20		.21
	.25		.22 $\frac{1}{2}$		.18 $\frac{1}{2}$		.21 $\frac{1}{2}$
Feb.....	.25	May ...	.20	Aug ...	.18 $\frac{1}{2}$	Nov ....	.22
	.25		.21		.19		.22
	.26		.21		.19		.22
	.27		.21		.19 $\frac{1}{2}$		.24
	.....		.....		.19 $\frac{1}{2}$		.25
Mar ....	.27 $\frac{1}{2}$	June...	.21 $\frac{1}{2}$	Sept ...	.19 $\frac{1}{2}$	Dec ....	.25
	.27 $\frac{1}{2}$		.22		.20		.25
	.28		.21		.21 $\frac{1}{2}$		.24
	.28 $\frac{1}{2}$		.21		.21 $\frac{1}{2}$		.24
	.28 $\frac{1}{2}$		.20		.....		.....
						Average	\$0.2302





TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

## FOOD, ETC.—Continued.

## EGGS: New-laid, fancy, near-by.

[Price per dozen in New York on Tuesday of each week; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.28-\$0.33 .30-.34 .27-.30 .25-.28	Apr....	\$0.15-\$0.16½ .15-.16 .16-.17 .16-.17½	July...	\$0.18½-\$0.19 .18½-.20 .18½-.20 .20-.22	Oct.....	\$0.25-\$0.28 .25-.30 .25-.30 .27-.33
Feb.....	.25-.27 .20-.23 .20-.22 .17-.18½	May...	.16-.17½ .17-.18½ .17-.19 .17-.19	Aug...	.20-.23 .20-.26 .20-.26 .21-.26	Nov....	.27-.35 .30-.38 .30-.40 .34-.45
Mar....	.17½-.19½ .19½-.21 .18-.20 .14-.15 .14½-.16½	June...	.16-.18 .18½-.19½ .18½-.19½ .18½-.19½ .18½-.19½	Sept...	.23-.26 .24-.27 .24-.27 .24-.27 .25-.28	Dec....	.31-.40 .31-.40 .34-.42 .36-.45 .36-.45
						Average	\$0.2418

## FISH: Cod, dry, bank, large.

[Price per quintal in Boston on the first of each month; quotations from the Boston Herald.]

Jan.....	\$5.50-\$5.75	Apr....	\$5.50-\$5.75	July...	\$5.75	Oct.....	\$5.75-\$6.00
Feb.....	5.50- 5.75	May...	5.50- 5.75	Aug...	5.75	Nov....	6.25- 6.50
Mar....	5.50- 5.75	June...	5.75	Sept...	\$6.00- 6.25	Dec....	6.50- 6.75
						Average	\$5.8646

## FISH: Herring, shore, round, large.

[Price per barrel in Boston on the first of each month; quotations from the Boston Herald.]

Jan.....	\$5.75-\$6.00	Apr....	\$5.75-\$6.00	July...	\$5.75-\$6.00	Oct.....	\$5.00-\$5.50
Feb.....	5.75- 6.00	May...	5.75- 6.00	Aug...	5.75- 6.00	Nov....	5.25- 5.50
Mar....	5.75- 6.00	June...	5.75- 6.00	Sept...	5.75- 6.00	Dec....	5.00- 5.50
						Average	\$5.7292

## FISH: Mackerel, salt, large No. 3s.

[Price per barrel in Boston on the first of each month; quotations from the Boston Herald.]

Jan....	<sup>a</sup> \$18.50-\$19.50	Apr....	<sup>a</sup> \$18.00-\$20.00	July...	\$13.75-\$15.00	Oct.....	\$14.50
Feb.....	<sup>a</sup> 19.50- 20.50	May...	18.00- 20.00	Aug...	14.00- 15.00	Nov....	15.50
Mar....	<sup>a</sup> 22.00- 23.00	June...	18.00- 20.00	Sept...	<sup>b</sup> 16.00- 17.00	Dec....	15.50
						Average	\$17.4479

## FISH: Salmon, canned, Columbia River, 1-pound talls.

[Price per dozen cans in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$1.55-\$1.60	Apr....	\$1.60	July...	\$1.50-\$1.60	Oct.....	\$1.70-\$1.75
Feb.....	1.60	May...	1.60	Aug...	1.55- 1.60	Nov....	1.70- 1.75
Mar....	1.60	June...	1.60	Sept...	1.55- 1.60	Dec....	1.70- 1.75
						Average	\$1.6208

<sup>a</sup> Large 2s.

<sup>b</sup> Medium 2s.



TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

FOOD, ETC.—Continued.

FLOUR: Buckwheat.

[Price per hundred pounds in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan .....	\$2. 30	Apr. ....	(a)	July ...	(a)	Oct. ....	\$2. 30-\$2. 40
Feb. ....	\$2. 15- 2. 25	May ...	(a)	Aug ...	(a)	Nov ....	2. 35- 2. 40
Mar .....	2. 00	June...	(a)	Sept ...	\$2. 75	Dec ....	2. 25- 2. 30
						Average	\$2. 3214

FLOUR: Rye.

[Price per barrel in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan .....	\$3. 00-\$3. 60	Apr. ....	\$2. 80-\$3. 25	July ...	\$2. 90-\$3. 20	Oct. ....	\$3. 25-\$3. 40
Feb. ....	2. 90- 3. 55	May ...	2. 75- 3. 20	Aug ...	2. 90- 3. 20	Nov ....	3. 25- 3. 40
Mar .....	2. 90- 3. 25	June...	2. 75- 3. 20	Sept ...	3. 05- 3. 30	Dec ....	3. 15- 3. 40
						Average	\$3. 1479

FLOUR: Wheat, spring patents.

[Price per barrel in New York on Tuesday of each week; quotations furnished by the statistician of the New York Produce Exchange.]

Jan .....	\$3. 55-\$4. 15	Apr. ....	\$3. 75-\$4. 15	July ...	\$4. 25-\$4. 65	Oct. ....	\$4. 30-\$4. 85
	3. 55- 4. 20		3. 75- 4. 25		4. 25- 4. 70		4. 40- 4. 80
	3. 75- 4. 30		3. 75- 4. 25		4. 15- 4. 65		4. 40- 4. 85
	3. 85- 4. 35		3. 75- 4. 25		4. 25- 4. 65		4. 40- 4. 85
Feb. ....	3. 85- 4. 20	May ...	3. 80- 4. 35	Aug ...	4. 30- 4. 80	Nov. ....	4. 40- 4. 80
	3. 85- 4. 20		3. 80- 4. 35		4. 35- 4. 85		4. 25- 4. 80
	3. 85- 4. 25		4. 00- 4. 45		4. 50- 5. 00		4. 15- 4. 75
	3. 85- 4. 25		4. 00- 4. 45		4. 50- 5. 00		4. 15- 4. 75
Mar .....	3. 85- 4. 25	June...	4. 05- 4. 50	Sept ...	4. 50- 5. 00	Dec ....	4. 15- 4. 75
	3. 85- 4. 25		4. 10- 4. 55		4. 45- 5. 00		4. 20- 4. 80
	3. 85- 4. 20		4. 10- 4. 55		4. 45- 4. 95		4. 20- 4. 80
	3. 85- 4. 15		4. 25- 4. 60		4. 40- 4. 90		4. 20- 4. 80
	3. 85- 4. 15		4. 25- 4. 60		4. 35- 4. 80		4. 20- 4. 80
						Average	\$4. 3303

FLOUR: Wheat, winter straights.

[Price per barrel in New York on Tuesday of each week; quotations furnished by the statistician of the New York Produce Exchange.]

Jan .....	\$3. 10-\$3. 50	Apr. ....	\$3. 20-\$3. 55	July ...	\$3. 45-\$3. 75	Oct ....	\$3. 50-\$3. 95
	3. 10- 3. 50		3. 20- 3. 60		3. 45- 3. 85		3. 55- 3. 95
	3. 25- 3. 60		3. 20- 3. 60		3. 45- 3. 80		3. 60- 4. 00
	3. 30- 3. 65		3. 20- 3. 60		3. 45- 3. 80		3. 60- 4. 00
Feb. ....	3. 25- 3. 60	May ...	3. 20- 3. 60	Aug ...	3. 45- 3. 85	Nov. ....	3. 60- 4. 00
	3. 25- 3. 60		3. 20- 3. 60		3. 45- 3. 85		3. 60- 4. 00
	3. 25- 3. 60		3. 30- 3. 60		3. 55- 3. 95		3. 60- 4. 00
	3. 25- 3. 60		3. 35- 3. 65		3. 50- 3. 80		3. 60- 4. 00
Mar .....	3. 25- 3. 60	June...	3. 40- 3. 70	Sept ...	3. 50- 3. 85	Dec ....	3. 60- 4. 00
	3. 25- 3. 60		3. 45- 3. 75		3. 50- 3. 85		3. 65- 4. 05
	3. 25- 3. 60		3. 45- 3. 75		3. 50- 3. 90		3. 65- 4. 05
	3. 25- 3. 60		3. 45- 3. 75		3. 50- 3. 90		3. 65- 4. 10
	3. 20- 3. 60		3. 45- 3. 75		3. 50- 3. 90		3. 70- 4. 15
						Average	\$3. 5923

a No quotation for month.

TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

FOOD, ETC.—Continued.

FRUIT: Apples, evaporated, choice.

[Price per pound in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.05 $\frac{3}{4}$ -\$0.06 $\frac{1}{2}$	Apr....	\$0.05 $\frac{1}{2}$ -\$0.06	July ...	\$0.06	Oet ....	\$0.06 -\$0.06 $\frac{1}{2}$
Feb.....	.05 $\frac{3}{4}$ - .06 $\frac{1}{2}$	May ...	.05 $\frac{1}{2}$ - .06	Aug ...	\$0.06 $\frac{1}{4}$ - .06 $\frac{1}{2}$	Nov ....	.06 $\frac{1}{4}$ - .06 $\frac{3}{4}$
Mar ....	.05 $\frac{1}{2}$ - .06 $\frac{1}{2}$	June...	.06	Sept...	.06 - .06 $\frac{1}{2}$	Dec ....	.05 $\frac{3}{4}$ - .06 $\frac{1}{2}$
						Average	\$0.0611

FRUIT: Apples, sun-dried, Southern, sliced.

[Price per pound in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$0.04 -\$0.05 $\frac{1}{2}$	Apr....	\$0.04 -\$0.05 $\frac{1}{4}$	July...	\$0.03 $\frac{3}{4}$ -\$0.04 $\frac{3}{4}$	Oet.....	\$0.03 $\frac{1}{2}$ -\$0.04 $\frac{1}{2}$
Feb.....	.04 - .05 $\frac{1}{2}$	May ...	.03 $\frac{3}{4}$ - .04 $\frac{3}{4}$	Aug ...	.03 $\frac{3}{4}$ - .04 $\frac{3}{4}$	Nov ....	.03 $\frac{1}{2}$ - .04 $\frac{1}{2}$
Mar ....	.04 $\frac{1}{2}$ - .05 $\frac{1}{2}$	June...	.03 $\frac{3}{4}$ - .04 $\frac{3}{4}$	Sept...	.03 $\frac{1}{2}$ - .04 $\frac{1}{2}$	Dec ....	.03 $\frac{1}{2}$ - .04
						Average	\$0.0432

FRUIT: Currants, amalias, in barrels.

[Price per pound in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$0.04 $\frac{1}{2}$	Apr....	\$0.04 $\frac{3}{8}$ -\$0.04 $\frac{1}{2}$	July ...	\$0.05 $\frac{1}{16}$ -\$0.05 $\frac{1}{8}$	Oet ....	\$0.04 $\frac{1}{2}$ -\$0.04 $\frac{7}{8}$
Feb.....	.04 $\frac{1}{2}$	May ...	.04 $\frac{3}{8}$ - .04 $\frac{1}{2}$	Aug ...	.05 - .05 $\frac{1}{8}$	Nov ....	.04 $\frac{1}{2}$ - .05
Mar ....	\$0.04 $\frac{1}{4}$ - .04 $\frac{3}{8}$	June...	.04 $\frac{3}{8}$ - .04 $\frac{1}{2}$	Sept...	.04 $\frac{7}{8}$ - .05	Dec ....	.05 - .05 $\frac{1}{2}$
						Average	\$0.0476

FRUIT: Prunes, California, Santa Clara, 60s to 70s, in 25-pound boxes.

[Price per pound in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$0.05 $\frac{1}{4}$	Apr....	\$0.04 $\frac{3}{4}$	July ...	\$0.04 $\frac{1}{2}$ -\$0.04 $\frac{3}{4}$	Oet ....	\$0.04 $\frac{1}{2}$ -\$0.04 $\frac{3}{4}$
Feb.....	\$0.05 - .05 $\frac{1}{4}$	May ...	\$0.04 $\frac{1}{2}$ - .04 $\frac{3}{4}$	Aug ...	.04 $\frac{1}{2}$ - .04 $\frac{3}{4}$	Nov ....	.04 $\frac{1}{2}$ - .04 $\frac{3}{4}$
Mar ....	.04 $\frac{3}{4}$ - .05	June...	.04 $\frac{1}{2}$ - .04 $\frac{3}{4}$	Sept...	.04 $\frac{1}{2}$ - .04 $\frac{3}{4}$	Dec ....	.05 $\frac{1}{8}$ - .05 $\frac{3}{8}$
						Average	\$0.0481

FRUIT: Raisins, California, London layer.

[Price per box in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$1.60-\$1.70	Apr....	\$1.40-\$1.50	July ...	\$1.25-\$1.45	Oet ....	\$1.50
Feb.....	1.50	May ...	1.25- 1.45	Aug ...	1.25- 1.45	Nov ....	1.50
Mar ....	1.50- 1.60	June...	1.25- 1.45	Sept ...	1.25- 1.45	Dec ....	\$1.40- 1.50
						Average	\$1.4458

GLUCOSE: 41° and 42° mixing.

[Price per hundred pounds in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$1.75	Apr....	\$1.90-\$1.95	July ...	\$1.95	Oet ....	\$1.95
Feb.....	1.75	May ...	1.80	Aug ...	1.95	Nov ....	1.70
Mar ....	1.85	June...	1.80	Sept ...	1.95	Dec ....	1.70
						Average	\$1.8396



TABLE 1.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

**FOOD, ETC.—Continued.**

**LARD: Prime contract.**

[Price per pound in New York on Tuesday of each week; quotations furnished by the statistician of the New York Produce Exchange.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan .....	\$0.1030	Apr. ....	\$0.1022 $\frac{1}{2}$	July ...	\$0.0825	Oct ....	\$0.0792 $\frac{1}{2}$
	.1025		.1025		.0765		.0737 $\frac{1}{2}$
	.1040		.1025		.0800		.0700
	.1040		.0975		.0775		.0710
Feb. ....	.0990	May ...	.0930	Aug ...	.0785	Nov ....	.0725
	.1000		.0925		.0815		.0730
	.1020		.0930		.0800		.0745
	.1010		.0915		.0812 $\frac{1}{2}$		.0700
Mar ....	.1017 $\frac{1}{2}$	June...	.0920	Sept ...	.0865	Dec ....	.0695
	.1035		.0907 $\frac{1}{2}$		.0900		.0690
	.1017 $\frac{1}{2}$		.0915		.0900		.0690
	.1040		.0890		.0890		.0700
	.1040		.0840		.0837 $\frac{1}{2}$		.0715
						Average	\$0.0877

**MEAL:** Corn, fine white.

[Price per bag of 100 pounds in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	<del>\$1.40</del> — <del>\$1.45</del>	Apr....	<del>\$1.15</del> — <del>\$1.20</del>	July ...	<del>\$1.35</del>	Oct.....	<del>\$1.20</del> — <del>\$1.25</del>
Feb.....	1.45	May ...	1.12— 1.15	Aug ...	1.35	Nov....	1.30
Mar ....	1.40— 1.45	June...	1.25— 1.30	Sept ...	1.30	Dec ....	1.15
						Average	<del>\$1.2967</del>

**MEAL:** Corn, fine yellow.

[Price per bag of 100 pounds in New York on the first of each month; quotations from the New York Journal of Commerce and Commercial Bulletin.]

Jan.....	\$1.40	Apr....	\$1.15-\$1.20	July ...	\$1.30	Oct.....	\$1.25-\$1.30
Feb.....	\$1.40- 1.45	May ...	1.08- 1.10	Aug ...	1.25	Nov....	1.25
Mar ....	1.35- 1.40	June...	1.25- 1.30	Sept...	\$1.30- 1.35	Dec ....	1.20
						Average	\$1.2783

**MEAT: Bacon, short clear sides, smoked.**

[Price per pound in Chicago on Tuesday of each week. From January to October 20, the prices are for packed, and from October 27 to December, for loose; quotations from the Daily Trade Bulletin.]

[illegible]





[Price per barrel in New York on Tuesday of each week; quotations furnished by the statistician of the New York Produce Exchange.]







TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

## FOOD, ETC.—Continued.

**STARCH:** Pure corn, for culinary purposes.

[Price per pound in New York on the first of each month: quotations from the Merchants' Review.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan .....	\$0.04 $\frac{1}{2}$	Apr....	\$0.05 $\frac{1}{2}$	July ...	\$0.05 $\frac{1}{2}$	Oct ....	\$0.05 $\frac{1}{2}$
Feb.....	.05 $\frac{1}{2}$	May ...	.05 $\frac{1}{2}$	Aug ...	.05 $\frac{1}{2}$	Nov ....	.05 $\frac{1}{2}$
Mar ....	.05 $\frac{1}{2}$	June ..	.05 $\frac{1}{2}$	Sept ...	.05 $\frac{1}{2}$	Dec ....	.05 $\frac{1}{2}$
						Average	\$0.0507

**SUGAR:** 89° fair refining.

[Price per pound in New York on Thursday of each week, including import duty of 1.44 cents per pound; quotations from Willett & Gray's Weekly Statistical Sugar Trade Journal.]

Jan.....	\$0.03440	Apr.....	\$0.03125	July ...	\$0.03000	Oct ....	\$0.03375
	.03440		.03060		.03000		.03375
	.03375		.03125		.03125		.03375
	.03310		.03190		.03190		.03375
	.03190		.03190		.03190		.03375
Feb.....	.03125	May ...	.03190	Aug ...	.03190	Nov ....	.03310
	.03190		.03190		.03190		.03310
	.03250		.03190		.03310		.03250
	.03250		.03125		.03375		.03250
Mar ....	.03310	June ..	.03125	Sept ...	.03375	Dec ....	.03190
	.03310		.03125		.03375		.03125
	.03250		.03125		.03375		.03125
	.03190		.03125		.03375		.03060
							.03000
						Average	\$0.03228

**SUGAR:** 96° centrifugal.

[Price per pound in New York on Thursday of each week, including import duty of 1.68½ cents per pound; quotations from Willett & Gray's Weekly Statistical Sugar Trade Journal.]

Jan.....	\$0.03875	Apr....	\$0.03560	July ...	\$0.03560	Oct.....	\$0.03910
	.03875		.03500		.03560		.03850
	.03875		.03590		.03690		.03875
	.03810		.03690		.03690		.03875
	.03690		.03690		.03660		.03875
Feb.....	.03625	May ...	.03690	Aug ...	.03720	Nov ....	.03810
	.03690		.03690		.03720		.03810
	.03750		.03690		.03810		.03750
	.03750		.03625		.03875		.03750
Mar ....	.03780	June...	.03590	Sept ...	.03875	Dec ....	.03690
	.03750		.03590		.03875		.03625
	.03720		.03590		.03875		.03625
	.03625		.03560		.03910		.03560
							.03470
						Average	\$0.03720





TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

## FOOD, ETC.—Concluded.

## VEGETABLES, FRESH: Potatoes, Burbank.

[Price per bushel in Chicago, weekly range; quotations furnished by the secretary of the Chicago Board of Trade.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.45-\$0.48 .45- .48 .45- .48 .45- .48 .46- .47	April ..	\$0.40-\$0.44 .39- .42 .38- .46 .44- .48	July ...	(a) (a) (a) (a)	Oct.....	(a) (a) \$0.58 \$0.54- .60 .56- .63
Feb.....	.46- .47 .45- .47 .45- .47 .45- .47	May ...	.42- .46 .47- .52 .50- .53 .55- .60 .52- .59	Aug ...	(a) (a) (a) (a) (a)	Nov....	.50- .60 .56- .61 .62- .70 .60- .69
Mar ....	.45- .47 .44- .46 .44- .45 .43- .45	June...	.50- .63 (a) .85 (a)	Sept ...	(a) (a) (a) (a)	Dec ....	.60- .66 .62- .66 .61- .65 .61- .63
						Average	\$0.5248

## VINEGAR: Cider, Monarch, in barrels.

[Price per gallon in New York on the first of each month; quotations from the Merchants' Review.]

Jan.....	\$0.13	Apr....	\$0.13	July ...	\$0.13	Oct.....	\$0.13
Feb.....	.13	May ...	.13	Aug ...	.13	Nov....	.13
Mar ....	.13	June ..	.13	Sept...	.13	Dec ....	.13
						Average	\$0.1300

## CLOTHS AND CLOTHING.

## BAGS: 2-bushel, Amoskeag.

[Price per bag on the first of each month.]

Jan.....	\$0.14	Apr....	\$0.14 $\frac{1}{2}$	July ...	\$0.14 $\frac{1}{2}$	Oct.....	\$0.15
Feb.....	.14	May ...	.14 $\frac{1}{2}$	Aug ...	.14 $\frac{1}{2}$	Nov....	.15
Mar ....	.14 $\frac{1}{4}$	June ..	.14 $\frac{1}{2}$	Sept...	.15	Dec ....	.15
						Average	\$0.1458

## BLANKETS: 11-4, 5 pounds to the pair, all wool.

[Price per pound maintained throughout the year.]

Year.	Price.
1903.....	\$0.92 $\frac{1}{2}$

## BLANKETS: 11-4, 5 pounds to the pair, cotton warp, all wool filling.

[Price per pound maintained throughout the year.]

Year.	Price.
1903.....	\$0.70

## BLANKETS: 11-4, 5 pounds to the pair, cotton warp, cotton and wool filling.

[Price per pound maintained throughout the year.]

Year.	Price.
1903.....	\$0.50

<sup>a</sup>No quotation for week.





**CLOTHS AND CLOTHING—Continued.**

[Price per yard on the first of each month.]

**CARPETS:** Brussels, 5-frame, Bigelow.

[Price per yard on the first of each month.]

**CARPETS:** Ingrain, 2-ply, Lowell.

[Price per yard on the first of each month.]

**CARPETS: Wilton, 5-frame, Bigelow.**

[Price per yard on the first of each month.]

**COTTON FLANNELS:**  $2\frac{4}{5}$  yards to the pound.

[Price per yard on the first of each month.]

**COTTON FLANNELS:** 3 $\frac{1}{2}$  yards to the pound.

[Price per yard on the first of each month.]

Jan.....	\$0.05	Apr....	\$0.05	July ...	\$0.06	Oct.....	\$0.06
Feb.....	.05	May ...	.06	Aug ...	.06	Nov....	.06
Mar ....	.05	June...	.06	Sept ...	.06	Dec ....	.06
						Average	\$0.0629











TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

**CLOTHS AND CLOTHING—Continued.****LINEN SHOE THREAD: 10s, Barbour.**

[Price per pound on the first of each month.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.846	Apr.....	\$0.846	July ...	\$0.846	Oct.....	\$0.846
Feb.....	.846	May ...	.846	Aug ...	.846	Nov ....	.846
Mar ....	.846	June...	.846	Sept ...	.846	Dec ....	.846
						Average	\$0.846

**LINEN THREAD: 3-cord, 200-yard spools, Barbour.**

[Price per dozen spools on the first of each month.]

Jan.....	\$0.837	Apr.....	\$0.837	July ...	\$0.837	Oct.....	\$0.837
Feb.....	.837	May ...	.837	Aug ...	.837	Nov ....	.837
Mar ....	.837	June...	.837	Sept ...	.837	Dec ....	.837
						Average	\$0.837

**OVERCOATINGS: Beaver, Moscow, all wool, black.**

[Price per yard maintained, generally, throughout the year. Represents bulk of sales.]

Year.	Price.
1903 .....	\$2.4413

**OVERCOATINGS: Chinchilla, B-rough, all wool.**

[Price per yard maintained, generally, throughout the year. Represents bulk of sales.]

1903 .....	\$2.2088
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**OVERCOATINGS: Chinchilla, cotton warp, C. C. grade.**

[Price per yard on the first of each month.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.44	Apr.....	\$0.45 $\frac{1}{2}$	July ...	\$0.45 $\frac{1}{2}$	Oct ....	\$0.46 $\frac{1}{2}$
Feb.....	.45 $\frac{1}{2}$	May ...	.45 $\frac{1}{2}$	Aug ...	.45 $\frac{1}{2}$	Nov ....	.45 $\frac{1}{2}$
Mar ....	.45 $\frac{1}{2}$	June ..	.45 $\frac{1}{2}$	Sept ...	.45 $\frac{1}{2}$	Dec ....	.44
						Average	\$0.4533

**OVERCOATINGS: Covert cloth, light weight, staple goods.**

[Price per yard maintained throughout the year.]

Year.	Price.
1903 .....	\$2.1899



TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

CLOTHS AND CLOTHING—Continued.

OVERCOATINGS: Kersey, standard, 27 to 28 ounce.

[Price per yard on the first of each month.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$1.57½	Apr....	\$1.57½	July...	\$1.57½	Oct.....	\$1.57½
Feb.....	1.57½	May...	1.57½	Aug...	1.57½	Nov....	1.57½
Mar....	1.57½	June..	1.57½	Sept...	1.57½	Dec....	1.57½
						Average	\$1.5750

PRINT CLOTHS: 28-inch, 64 by 64.

[Average weekly price per yard.]

Jan.....	\$0.030000	Apr....	\$0.032500	July...	\$0.032500	Oct....	\$0.033750
	.030000		.030625		.032500		.032500
	.030313		.031250		.031875		.031250
	.031190		.031250		.031875		.031250
	.031875						.031250
Feb.....	.032500	May...	.031250	Aug...	.032500	Nov....	.031875
	.032500		.030000		.031875		.032500
	.032500		.030000		.031875		.032500
	.032500		.031250		.032500		.032500
			.031875		.032500		
Mar.....	.032500	June..	.031875	Sept...	.032500	Dec....	.032500
	.032500		.032500		.033750		.033750
	.032500		.032500		.033750		.034966
	.032500		.032500		.033750		.035000
						Average	\$0.032156

SHAWLS: Standard, all wool, 72 by 144 inch, 42-ounce, made of high-grade wool.

[Price each on the first of each month.]

Jan.....	\$4.90	Apr....	\$4.90	July...	\$4.90	Oct....	\$4.90
Feb.....	4.90	May...	4.90	Aug...	4.90	Nov....	4.90
Mar....	4.90	June..	4.90	Sept...	4.90	Dec....	4.90
						Average	\$4.90

SHEETINGS: Bleached, 10-4, Atlantic.

[Price per yard on the first of each month.]

Jan.....	\$0.1995	Apr....	\$0.1973	July...	\$0.2271	Oct....	\$0.2325
Feb.....	.1962	May...	.2112	Aug...	.2247	Nov....	.2114
Mar....	.1981	June..	.2258	Sept...	(a)	Dec....	(a)
						Average	\$0.2124

SHEETINGS: Bleached, 10-4, Pepperell.

[Price per yard on the first of each month.]

Jan.....	\$0.22	Apr....	\$0.22	July...	\$0.23	Oct....	\$0.23
Feb.....	.22	May...	.22	Aug...	.23	Nov....	.24
Mar....	.22	June..	.23	Sept...	.23	Dec....	.24
						Average	\$0.2275

a No sales during month.

TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

**CLOTHS AND CLOTHING—Continued.****SHEETINGS: Bleached, 10-4, Wamsutta S. T.**

[Price per yard on the first of each month.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$0.2925	Apr....	\$0.2925	July ...	\$0.3150	Oct.....	\$0.3150
Feb.....	.2925	May ...	.2925	Aug ...	.3150	Nov....	.3150
Mar ....	.2925	June ..	.2925	Sept ...	.3150	Dec ....	.3150
						Average	\$0.3038

**SHEETINGS: Brown, 4-4, Atlantic A.**

[Price per yard on the first of each month.]

Jan.....	\$0.0588	Apr....	\$0.0614	July ...	\$0.0642	Oct.....	\$0.0661
Feb.....	.0598	May ...	.0620	Aug ...	.0656	Nov....	.0660
Mar ....	.0611	June ..	.0640	Sept ...	.0665	Dec ....	.0673
						Average	\$0.0636

**SHEETINGS: Brown, 4-4, Indian Head.**

[Price per yard on the first of each month.]

Jan.....	\$0.06 $\frac{1}{4}$	Apr....	\$0.06 $\frac{1}{2}$	July ...	\$0.07	Oct.....	\$0.07
Feb.....	.06 $\frac{1}{2}$	May ...	.06 $\frac{1}{2}$	Aug ...	.07	Nov....	.07 $\frac{1}{4}$
Mar ....	.06 $\frac{1}{2}$	June ..	.06 $\frac{3}{4}$	Sept ...	.07	Dec ....	.07 $\frac{1}{2}$
						Average	\$0.0681

**SHEETINGS: Brown, 4-4, Massachusetts Mills, Flying Horse brand,  
2 $\frac{85}{100}$  yards to the pound.**

[Price per yard on the first of each month.]

Jan.....	\$0.05 $\frac{3}{8}$	Apr....	\$0.06	July ...	\$0.06 $\frac{1}{4}$	Oct.....	\$0.06 $\frac{1}{2}$
Feb.....	.05 $\frac{7}{8}$	May ...	.06 $\frac{1}{8}$	Aug ...	.06 $\frac{1}{4}$	Nov....	.06 $\frac{1}{2}$
Mar ....	.06	June...	.06 $\frac{1}{4}$	Sept ...	.06 $\frac{1}{2}$	Dec ....	.06 $\frac{3}{4}$
						Average	\$0.0623

**SHEETINGS: Brown, 4-4, Pepperell R.**

[Price per yard on the first of each month.]

Jan.....	\$0.05 $\frac{5}{8}$	Apr....	\$0.05 $\frac{3}{4}$	July ...	\$0.06	Oct.....	\$0.06 $\frac{1}{2}$
Feb.....	.05 $\frac{3}{4}$	May ...	.05 $\frac{3}{4}$	Aug ...	.06 $\frac{1}{4}$	Nov....	.06 $\frac{1}{4}$
Mar ....	.05 $\frac{3}{4}$	June...	.06	Sept ...	.06 $\frac{1}{4}$	Dec ....	.06 $\frac{1}{4}$
						Average	\$0.0599

**SHIRTINGS: Bleached, 4-4, Fruit of the Loom.**

[Price per yard on the first of each month.]

Jan.....	\$0.07 $\frac{3}{8}$	Apr....	\$0.07 $\frac{1}{2}$	July ...	\$0.07 $\frac{5}{8}$	Oct.....	\$0.07 $\frac{7}{8}$
Feb.....	.07 $\frac{3}{8}$	May ...	.07 $\frac{5}{8}$	Aug ...	.07 $\frac{7}{8}$	Nov....	.07 $\frac{7}{8}$
Mar ....	.07 $\frac{1}{2}$	June...	.07 $\frac{5}{8}$	Sept ...	.07 $\frac{7}{8}$	Dec ....	.07 $\frac{7}{8}$
						Average	\$0.0767























**METALS AND IMPLEMENTS—Continued.**

[Price each in New York on the first of each month.]

**BAR IRON: Best refined, from mill.**

**BAR IRON: Best refined, from store.**

**BARB WIRE: Galvanized.**

**BUTTS: Loose joint, cast, 3 by 3 inch.**

**CHISELS: Extra, socket firmer, 1-inch.**

Jan.....	\$0.28	Apr....	\$0.28	July...	\$0.28	Oct.....	\$0.28
Feb.....	.28	May...	.28	Aug...	.28	Nov....	.28
Mar....	.28	June...	.28	Sept...	.28	Dec....	.28
						Average	<u>\$0.28</u>























TABLE I.—WHOLESALE PRICES OF COMMODITIES IN 1903—Continued.

## LUMBER AND BUILDING MATERIALS—Continued.

**PINE: White, boards, No. 2 barn, 1 inch by 10 inches wide, rough.**

[Price per M feet in Buffalo on the first of each month; quotations from the New York Lumber Trade Journal.]

Month.	Price.	Month.	Price.	Month.	Price.	Month.	Price.
Jan.....	\$24.00	Apr....	\$24.00	July...	\$24.00	Oct.....	\$24.00
Feb.....	24.00	May...	24.00	Aug...	24.00	Nov....	24.00
Mar....	24.00	June..	24.00	Sept...	24.00	Dec....	24.00
						Average	\$24.00

**PINE: White, boards, uppers, 1-inch, 8 inches and up wide, rough.**

[Price per M feet in Buffalo on the first of each month; quotations from the New York Lumber Trade Journal.]

Jan.....	\$80.00	Apr....	\$80.00	July...	\$80.00	Oct.....	\$80.00
Feb.....	80.00	May...	80.00	Aug...	80.00	Nov....	80.00
Mar....	80.00	June..	80.00	Sept...	80.00	Dec....	80.00
						Average	\$80.00

**PINE: Yellow, long leaf, boards, heart-face sidings, 1-inch and 1½-inch.**

[Price per M feet in New York on the first of each month; quotations from the New York Lumber Trade Journal.]

Jan.....	\$20.50-\$21.50	Apr....	\$20.50-\$21.50	July...	\$20.50-\$21.50	Oct.....	\$20.50-\$21.50
Feb.....	20.50- 21.50	May...	20.50- 21.50	Aug...	20.50- 21.50	Nov....	20.50- 21.50
Mar....	20.50- 21.50	June..	20.50- 21.50	Sept...	20.50- 21.50	Dec....	20.50- 21.50
						Average	\$21.00

**PLATE GLASS: Polished, unsilvered, area 3 to 5 square feet.**

[Price per square foot, f. o. b. New York, on the first of each month.]

Jan.....	\$0.27	Apr....	\$0.27	July...	\$0.27	Oct.....	\$0.24
Feb.....	.27	May...	.27	Aug...	.27	Nov....	.24
Mar....	.27	June..	.27	Sept...	.27	Dec....	.24
						Average	\$0.2625

**PLATE GLASS: Polished, unsilvered, area 5 to 10 square feet.**

[Price per square foot, f. o. b. New York, on the first of each month.]

Jan.....	\$0.44½	Apr....	\$0.44½	July...	\$0.44½	Oct....	\$0.39
Feb.....	.44½	May...	.44½	Aug...	.44½	Nov....	.39
Mar....	.44½	June..	.44½	Sept...	.44½	Dec....	.39
						Average	\$0.4313

**POPLAR: Yellow, 1-inch, 8 inches and up wide, firsts and seconds, rough.**

[Price per M feet in New York on the first of each month; quotations from the New York Lumber Trade Journal.]

Jan.....	\$45.00	Apr....	\$47.50	July...	\$51.00-\$52.50	Oct....	\$51.00-\$52.50
Feb.....	46.00	May...	47.50	Aug...	51.00- 52.50	Nov....	51.00- 52.50
Mar....	47.50	June..	\$51.00- 52.50	Sept...	51.00- 52.50	Dec....	51.00- 52.50
						Average	\$49.6458



























TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903.

[For a more detailed description of the articles, see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Farm products.									
	Barley: by sample.		Cattle: steers, choice to extra.		Cattle: steers, good to choice.		Corn: No. 2, cash.		Cotton: upland, middling.	
	Price per bushel.	Relative price.	Price per 100 lbs.	Relative price.	Price per 100 lbs.	Relative price.	Price per bushel.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.4534	100.0	\$5.3203	100.0	\$4.7347	100.0	\$0.3804	100.0	\$0.07762	100.0
Jan .....	.5600	123.5	5.9938	112.7	5.2250	110.4	.4650	122.2	.08925	115.0
Feb .....	.5413	119.4	5.6813	106.8	5.0000	105.6	.4360	114.6	.09588	123.5
Mar .....	.5288	116.6	5.5950	105.2	5.1350	108.5	.4335	114.0	.10130	130.5
Apr .....	.5250	115.8	5.5688	104.7	5.2875	111.7	.4347	114.3	.10513	135.4
May .....	.5440	120.0	5.4063	101.6	5.1125	108.0	.4488	118.0	.11425	147.2
June .....	.5350	118.0	5.3600	100.7	4.9500	104.5	.4918	129.3	.12440	160.3
July .....	.5170	114.0	5.3188	100.0	4.9438	104.4	.5088	133.8	.12450	160.4
Aug .....	.5363	118.3	5.4438	102.3	4.9813	105.2	.5181	136.2	.12750	164.3
Sept .....	.5900	130.1	5.6750	106.7	5.1400	108.6	.4990	131.2	.12270	158.1
Oct .....	.5770	127.3	5.7438	108.0	5.0813	107.3	.4444	116.8	.09813	126.4
Nov .....	.5769	127.2	5.4875	103.1	4.9625	104.8	.4284	112.6	.11063	142.5
Dec .....	.5619	123.9	5.5600	104.5	4.9400	104.3	.4190	110.1	.12780	164.6
Average, 1903.....	.5494	121.2	5.5678	104.7	5.0615	106.9	.4606	121.1	.11235	144.7

Month.	Farm products.									
	Flaxseed: No. 1.		Hay: timothy, No. 1.		Hides: green, salted, packers, heavy native steers.		Hogs: heavy.		Hogs: light.	
	Price per bushel.	Relative price.	Price per ton.	Relative price.	Price per pound.	Relative price.	Price per 100 lbs.	Relative price.	Price per 100 lbs.	Relative price.
Average, 1890-1899..	\$1.1132	100.0	\$10.4304	100.0	\$0.0937	100.0	\$4.4123	100.0	\$4.4206	100.0
Jan .....	1.1750	105.6	12.5000	119.8	.1311	139.9	6.6906	151.6	6.4063	144.9
Feb .....	1.1800	106.0	12.3750	118.6	.1243	132.7	7.0750	160.3	6.8188	154.3
Mar .....	1.1400	102.4	12.9000	123.7	.1183	126.3	7.5175	170.4	7.3100	165.4
Apr .....	1.0900	97.9	14.0000	134.2	.1130	120.6	7.3500	166.6	7.1875	162.6
May .....	1.0950	98.4	13.9375	133.6	.1166	124.4	6.6125	149.9	6.3719	144.1
June .....	1.1150	100.2	13.9500	133.7	.1186	126.6	6.0925	138.1	6.0500	136.9
July .....	1.0050	90.3	13.2500	127.0	.1168	124.7	5.4188	122.8	5.6188	127.1
Aug .....	.9500	85.3	12.7500	122.2	.1137	121.3	5.4063	122.5	5.7219	129.4
Sept .....	.9650	86.7	10.8000	103.5	.1194	127.4	5.8550	132.7	6.1525	139.2
Oct .....	.9725	87.4	11.1250	106.7	.1134	121.0	5.5375	125.5	5.8125	131.5
Nov .....	.9350	84.0	10.6250	101.9	.1085	115.8	4.6375	105.1	4.7563	107.6
Dec .....	.9425	84.7	11.1500	106.9	.1086	115.9	4.5475	103.1	4.4950	101.7
Average, 1903.....	1.0471	94.1	12.4279	119.2	.1169	124.8	6.0572	137.3	6.0541	137.0

Month.	Farm products.									
	Hops: New York State, choice.		Oats: cash.		Rye: No. 2, cash.		Sheep: native.		Sheep: West-ern.	
	Price per pound.	Relative price.	Price per bushel.	Relative price.	Price per bushel.	Relative price.	Price per 100 lbs.	Relative price.	Price per 100 lbs.	Relative price.
Average, 1890-1899..	\$0.1771	100.0	\$0.2688	100.0	\$0.5288	100.0	\$3.7580	100.0	\$3.9541	100.0
Jan .....	.3600	203.3	.3328	123.8	.4888	92.4	3.8188	101.6	4.2500	107.5
Feb .....	.3600	203.3	.3431	127.6	.4972	94.0	4.2938	114.3	4.5438	114.9
Mar .....	.3400	192.0	.3328	123.8	.5018	94.9	5.1000	135.7	4.9350	124.8
Apr .....	.2900	163.7	.3372	125.4	.5025	95.0	4.6563	123.9	5.0125	126.8
May .....	.2350	132.7	.3531	131.4	.4991	94.4	4.6375	123.4	4.8688	123.1
June .....	.2350	132.7	.3830	142.5	.5100	96.4	4.0000	106.4	4.2350	107.1
July .....	.2300	129.9	.3985	148.3	.5044	95.4	3.2500	86.5	3.2313	81.7
Aug .....	.2100	118.6	.3475	129.3	.5160	97.6	3.2375	86.1	3.4313	86.8
Sept .....	.2525	142.6	.3613	134.4	.5613	106.1	2.9150	77.6	3.0700	77.6
Oct .....	.2575	145.4	.3581	133.2	.5475	103.5	2.8125	74.8	2.9938	75.7
Nov .....	.3100	175.0	.3470	129.1	.5350	101.2	2.6813	71.3	2.8000	70.8
Dec .....	.3100	175.0	.3514	130.7	.5165	97.7	3.0600	81.4	3.1750	80.3
Average, 1903.....	.2825	159.5	.3541	131.7	.5156	97.5	3.7101	98.7	3.8769	98.0



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Farm products.		Food, etc.							
	Wheat: contract grades, cash.		Beans: medium, choice.		Bread: crackers, Boston X.		Bread: crackers, soda.		Bread: loaf (Washington market).	
	Price per bushel.	Relative price.	Price per bushel.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per loaf.	Relative price.
Average, 1890-1899..	\$0.7510	100.0	\$1.6699	100.0	\$0.0673	100.0	\$0.0718	100.0	\$0.0398	100.0
Jan .....	.7413	98.7	2.3875	143.0	.0800	118.9	.0700	97.5	.0400	100.5
Feb .....	.7538	100.4	2.3500	140.7	.0800	118.9	.0700	97.5	.0400	100.5
Mar .....	.7284	97.0	2.3000	137.7	.0800	118.9	.0700	97.5	.0400	100.5
Apr .....	.7588	101.0	2.2375	134.0	.0800	118.9	.0600	83.6	.0400	100.5
May .....	.7809	104.0	2.2000	131.7	.0800	118.9	.0600	83.6	.0400	100.5
June .....	.7824	104.2	2.3000	137.7	.0800	118.9	.0600	83.6	.0400	100.5
July .....	.7936	105.7	2.2875	137.0	.0800	118.9	.0600	83.6	.0400	100.5
Aug .....	.8311	110.7	2.2500	134.7	.0700	104.0	.0650	90.5	.0400	100.5
Sept .....	.8490	113.0	2.1875	131.0	.0700	104.0	.0650	90.5	.0400	100.5
Oct .....	.8186	109.0	2.2750	136.2	.0700	104.0	.0650	90.5	.0400	100.5
Nov .....	.7974	106.2	2.2000	131.7	.0700	104.0	.0650	90.5	.0400	100.5
Dec .....	.8309	110.6	2.1750	130.2	.0700	104.0	.0650	90.5	.0400	100.5
Average, 1903 .....	.7895	105.1	2.2625	135.5	.0758	112.6	.0646	90.0	.0400	100.5

Month.	Food, etc.									
	Bread: loaf, homemade (N. Y. market).		Bread: loaf, Vienna (N. Y. market).		Butter: creamery, Elgin (Elgin market).		Butter: creamery, extra (N. Y. market).		Butter: dairy, New York State.	
	Price per loaf.	Relative price.	Price per loaf.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.0396	100.0	\$0.0396	100.0	\$0.2170	100.0	\$0.2242	100.0	\$0.2024	100.0
Jan .....	.0400	101.0	.0400	101.0	.2725	125.6	.2725	121.5	.2544	125.7
Feb .....	.0400	101.0	.0400	101.0	.2575	118.7	.2650	118.2	.2419	119.5
Mar .....	.0400	101.0	.0400	101.0	.2810	129.5	.2865	127.8	.2610	129.0
Apr .....	.0400	101.0	.0400	101.0	.2588	119.3	.2625	117.1	.2475	122.3
May .....	.0400	101.0	.0400	101.0	.2075	95.6	.2213	98.7	.2100	103.8
June .....	.0400	101.0	.0400	101.0	.2110	97.2	.2158	96.3	.2075	102.5
July .....	.0400	101.0	.0400	101.0	.1963	90.5	.2003	89.3	.1913	94.5
Aug .....	.0400	101.0	.0400	101.0	.1905	87.8	.1941	86.6	.1794	88.6
Sept .....	.0400	101.0	.0400	101.0	.2063	95.1	.2073	92.5	.1915	94.6
Oct .....	.0400	101.0	.0400	101.0	.2088	96.2	.2132	95.1	.1906	94.2
Nov .....	.0400	101.0	.0400	101.0	.2300	106.0	.2310	103.0	.2013	99.5
Dec .....	.0400	101.0	.0400	101.0	.2450	112.9	.2440	108.8	.2030	100.3
Average, 1903 .....	.0400	101.0	.0400	101.0	.2302	106.1	.2348	104.7	.2150	106.2

Month.	Food, etc.									
	Cheese: N. Y. State, full cream.		Coffee: Rio No. 7.		Eggs: new-laid, fancy, near-by.		Fish: cod, dry, bank, large.		Fish: herring, shore, round.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per dozen.	Relative price.	Price per quintal.	Relative price.	Price per barrel.	Relative price.
Average, 1890-1899..	\$0.0987	100.0	\$0.1313	100.0	\$0.1963	100.0	\$5.5849	100.0	\$3.7763	100.0
Jan .....	.1413	143.2	.0538	41.0	.2938	149.7	5.6250	100.7	5.8750	155.6
Feb .....	.1438	145.7	.0538	41.0	.2156	109.8	5.6250	100.7	5.8750	155.6
Mar .....	.1445	146.4	.0581	44.2	.1755	89.4	5.6250	100.7	5.8750	155.6
Apr .....	.1463	148.2	.0544	41.4	.1613	82.2	5.6250	100.7	5.8750	155.6
May .....	.1166	118.1	.0525	40.0	.1763	89.8	5.6250	100.7	5.8750	155.6
June .....	.1063	107.7	.0525	40.0	.1860	94.8	5.7500	103.0	5.8750	155.6
July .....	.1006	101.9	.0538	41.0	.1956	99.6	5.7500	103.0	5.8750	155.6
Aug .....	.1000	101.3	.0525	40.0	.2275	115.9	5.7500	103.0	5.8750	155.6
Sept .....	.1105	112.0	.0525	40.0	.2550	129.9	6.1250	109.7	5.8750	155.6
Oct .....	.1156	117.1	.0575	43.8	.2788	142.0	5.8750	105.2	5.2500	139.0
Nov .....	.1169	118.4	.0638	48.6	.3488	177.7	6.3750	114.1	5.3750	142.3
Dec .....	.1200	121.6	.0650	49.5	.3800	193.6	6.6250	118.6	5.2500	139.0
Average, 1903 .....	.1217	123.3	.0559	42.6	.2418	123.2	5.8646	105.0	5.7292	151.7



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Food, etc.									
	Fish: mackerel, salt, large No. 3s.		Fish: salmon, canned.		Flour: buck-wheat.		Flour: rye.		Flour: wheat, spring patents.	
	Price per barrel.	Relative price.	Price per 12 cans.	Relative price.	Price per 100 lbs.	Relative price.	Price per barrel.	Relative price.	Price per barrel.	Relative price.
Average, 1890-1899..	\$14.1306	100.0	\$1.4731	100.0	\$1.9428	100.0	\$3.3171	100.0	\$4.2972	100.0
Jan .....	19.0000	134.5	1.5750	106.9	2.3000	118.4	3.3000	99.5	3.9625	92.2
Feb .....	20.0000	141.5	1.6000	108.6	2.2000	113.2	3.2250	97.2	4.0375	94.0
Mar .....	22.5000	159.2	1.6000	108.6	2.0000	102.9	3.0750	92.7	4.0250	93.7
Apr .....	19.0000	134.5	1.6000	108.6	(a)	.....	3.0250	91.2	3.9875	92.8
May .....	19.0000	134.5	1.6000	108.6	(a)	.....	2.9750	89.7	4.1500	96.6
June .....	19.0000	134.5	1.6000	108.6	(a)	.....	2.9750	89.7	4.3550	101.3
July .....	14.3750	101.7	1.5500	105.2	(a)	.....	3.0500	91.9	4.4438	103.4
Aug .....	14.5000	102.6	1.5750	106.9	(a)	.....	3.0500	91.9	4.6625	108.5
Sept .....	16.5000	116.8	1.5750	106.9	2.7500	141.5	3.1750	95.7	4.6800	108.9
Oct .....	14.5000	102.6	1.7250	117.1	2.3500	121.0	3.3250	100.2	4.6063	107.2
Nov .....	15.5000	109.7	1.7250	117.1	2.3750	122.2	3.3250	100.2	4.5063	104.9
Dec .....	15.5000	109.7	1.7250	117.1	2.2750	117.1	3.2750	98.7	4.4900	104.5
Average, 1903 .....	17.4479	123.5	1.6208	110.0	2.3214	119.5	3.1479	94.9	4.3303	100.8

Month.	Food, etc.									
	Flour: wheat, winter straights.		Fruit: apples, evaporated, choice.		Fruit: apples, sun-dried, Southern, sliced.		Fruit: currants, in barrels.		Fruit: prunes, California, in boxes.	
	Price per barrel.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$3.8450	100.0	\$0.0847	100.0	\$0.0515	100.0	\$0.0375	100.0	\$0.0774	100.0
Jan .....	3.3750	87.8	.0613	72.4	.0475	92.2	.0450	120.0	.0525	67.8
Feb .....	3.4250	89.1	.0613	72.4	.0475	92.2	.0450	120.0	.0513	66.3
Mar .....	3.4200	88.9	.0600	70.8	.0500	97.1	.0431	114.9	.0488	63.0
Apr .....	3.3938	88.3	.0575	67.9	.0463	89.9	.0469	125.1	.0475	61.4
May .....	3.4375	89.4	.0575	67.9	.0425	82.5	.0444	118.4	.0463	59.8
June .....	3.5900	93.4	.0600	70.8	.0425	82.5	.0469	125.1	.0463	59.8
July .....	3.6250	94.3	.0600	70.8	.0425	82.5	.0509	135.7	.0463	59.8
Aug .....	3.6750	95.6	.0638	75.3	.0425	82.5	.0506	134.9	.0463	59.8
Sept .....	3.6900	96.0	.0625	73.8	.0400	77.7	.0494	131.7	.0463	59.8
Oct .....	3.7688	98.0	.0625	73.8	.0400	77.7	.0481	128.3	.0463	59.8
Nov .....	3.8000	98.8	.0650	76.7	.0400	77.7	.0488	130.1	.0463	59.8
Dec .....	3.8600	100.4	.0613	72.4	.0375	72.8	.0525	140.0	.0525	67.8
Average, 1903 .....	3.5923	93.4	.0611	72.1	.0432	83.9	.0476	126.9	.0481	62.1

Month.	Food, etc.									
	Fruit: raisins, California, London layer.		Glucose: 41° and 42° mixing.		Lard: prime contract.		Meal: corn, fine white.		Meal: corn, fine yellow.	
	Price per box.	Relative price.	Price per 100 lbs.	Relative price.	Price per pound.	Relative price.	Price per 100 lbs.	Relative price.	Price per 100 lbs.	Relative price.
Average, 1890-1899..	\$1.5006	100.0	<sup>b</sup> \$1.4182	100.0	\$0.0654	100.0	\$1.0486	100.0	\$1.0169	100.0
Jan .....	1.6500	110.0	1.7500	123.4	.1034	158.1	1.4250	135.9	1.4000	137.7
Feb .....	1.5000	100.0	1.7500	123.4	.1005	153.7	1.4500	138.3	1.4250	140.1
Mar .....	1.5500	103.3	1.8500	130.4	.1030	157.5	1.4250	135.9	1.3750	135.2
Apr .....	1.4500	96.6	1.9250	135.7	.1012	154.7	1.1750	112.1	1.1750	115.5
May .....	1.3500	90.0	1.8000	126.9	.0925	141.4	1.1350	108.2	1.0900	107.2
June .....	1.3500	90.0	1.8000	126.9	.0895	136.9	1.2750	121.6	1.2750	125.4
July .....	1.3500	90.0	1.9500	137.5	.0791	120.9	1.3500	128.7	1.3000	127.8
Aug .....	1.3500	90.0	1.9500	137.5	.0803	122.8	1.3500	128.7	1.2500	122.9
Sept .....	1.3500	90.0	1.9500	137.5	.0879	134.4	1.3000	124.0	1.3250	130.3
Oct .....	1.5000	100.0	1.9500	137.5	.0735	112.4	1.2250	116.8	1.2750	125.4
Nov .....	1.5000	100.0	1.7000	119.9	.0725	110.9	1.3000	124.0	1.2500	122.9
Dec .....	1.4500	96.6	1.7000	119.9	.0698	106.7	1.1500	109.7	1.2000	118.0
Average, 1903 .....	1.4458	96.3	1.8396	129.7	.0877	134.1	1.2967	123.7	1.2783	125.7

<sup>a</sup> No quotation for month. <sup>b</sup> Average for 1893-1899.



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Food, etc.									
	Meat: bacon, short clear sides.		Meat: bacon, short rib sides.		Meat: beef, fresh, native sides.		Meat: beef, salt, extra mess.		Meat: beef, salt, hams, Western.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per barrel.	Relative price.	Price per barrel.	Relative price.
Average, 1890-1899..	\$0.0675	100.0	\$0.0656	100.0	\$0.0771	100.0	\$8.0166	100.0	\$18.0912	100.0
Jan .....	.1003	148.6	.0988	150.6	.0897	116.3	10.5500	131.6	21.2500	117.5
Feb .....	.1044	154.7	.1022	155.8	.0800	103.8	10.2500	127.9	20.7500	114.7
Mar .....	.1104	163.6	.1079	164.5	.0803	104.2	9.8750	123.2	20.7500	114.7
Apr .....	.1100	163.0	.1075	163.9	.0819	106.2	9.5625	119.3	20.7500	114.7
May .....	.1031	152.7	.1012	154.3	.0807	104.7	9.3500	116.6	20.7500	114.7
June .....	.1014	150.2	.0999	152.3	.0778	100.9	8.9375	111.5	20.1500	111.4
July .....	.0944	139.9	.0919	140.1	.0760	98.6	8.3750	104.5	21.0000	116.1
Aug .....	.0891	132.0	.0853	130.0	.0750	97.3	8.2500	102.9	22.0000	121.6
Sept .....	.0941	139.4	.0921	140.4	.0755	97.9	8.2500	102.9	22.2500	123.0
Oct .....	.0902	133.6	.0880	134.1	.0757	98.2	8.4500	105.4	22.2500	123.0
Nov .....	.0820	121.5	.0803	122.4	.0750	97.3	8.3750	104.5	21.5000	118.8
Dec .....	.0732	108.4	.0713	108.7	.0745	96.6	8.5000	106.0	21.2500	117.5
Average, 1903 .....	.0959	142.1	.0938	143.0	.0784	101.7	9.0673	113.1	21.2115	117.2

Month.	Food, etc.									
	Meat: hams, smoked.		Meat: mutton, dressed.		Meat: pork, salt, mess, old to new.		Milk: fresh.		Molasses: New Orleans, open kettle, prime.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per barrel.	Relative price.	Price per quart.	Relative price.	Price per gallon.	Relative price.
Average, 1890-1899..	\$0.0984	100.0	\$0.0754	100.0	\$11.6332	100.0	\$0.0255	100.0	\$0.3151	100.0
Jan .....	.1222	124.2	.0688	91.2	18.2500	156.9	.0350	137.3	.3600	114.2
Feb .....	.1266	128.7	.0750	99.5	18.0625	155.3	.0350	137.3	.3600	114.2
Mar .....	.1315	133.6	.0880	116.7	18.4750	158.8	.0331	129.8	.3600	114.2
Apr .....	.1324	134.6	.0913	121.1	18.4875	158.5	.0312	122.4	.3500	111.1
May .....	.1299	132.0	.0900	119.4	18.5000	159.0	.0265	103.9	.3500	111.1
June .....	.1270	129.1	.0855	113.4	18.3500	157.7	.0236	92.5	.3500	111.1
July .....	.1319	134.0	.0750	99.5	16.8750	145.1	.0225	88.2	.3500	111.1
Aug .....	.1347	136.9	.0669	88.7	15.5625	133.8	.0225	88.2	.3600	114.2
Sept .....	.1341	136.3	.0655	86.9	15.0750	129.6	.0258	101.2	.3600	114.2
Oct .....	.1243	126.3	.0619	82.1	13.4875	115.5	.0284	111.4	.3600	114.2
Nov .....	.1204	122.4	.0600	79.6	13.3750	115.0	.0300	117.6	.3600	114.2
Dec .....	.1115	113.3	.0635	84.2	13.2750	114.1	.0325	127.5	.3350	106.3
Average, 1903 .....	.1271	129.2	.0744	98.7	16.6514	143.1	.0288	112.9	.3546	112.5

Month.	Food, etc.									
	Rice: domestic, choice.		Salt: American.		Salt: Ashton's.		Soda: bicarbonate of, American.		Spices: nutmegs.	
	Price per pound.	Relative price.	Price per barrel.	Relative price.	Price per bushel.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.0561	100.0	\$0.7044	100.0	\$2.2033	100.0	\$0.0209	100.0	\$0.4322	100.0
Jan .....	.0575	102.5	.6200	88.0	2.2750	103.3	.0125	59.8	.2325	53.8
Feb .....	.0581	103.6	.6500	92.3	2.2750	103.3	.0125	59.8	.3100	71.7
Mar .....	.0581	103.6	.6200	88.0	2.2750	103.3	.0125	59.8	.3050	70.6
Apr .....	.0594	105.9	.6200	88.0	2.1500	97.6	.0125	59.8	.2950	68.3
May .....	.0588	104.8	.5700	80.9	2.2500	102.1	.0125	59.8	.2850	65.9
June .....	.0588	104.8	.5500	78.1	2.2500	102.1	.0125	59.8	.2900	67.1
July .....	.0581	103.6	.5620	79.8	2.2500	102.1	.0125	59.8	.2900	67.1
Aug .....	.0581	103.6	.5700	80.9	2.2500	102.1	.0135	64.6	.2900	67.1
Sept .....	.0581	103.6	.6150	87.3	2.2500	102.1	.0135	64.6	.2825	65.4
Oct .....	.0531	94.7	.6300	89.4	2.2500	102.1	.0135	64.6	.2875	66.5
Nov .....	.0519	92.5	.6300	89.4	2.2500	102.1	.0135	64.6	.2950	68.3
Dec .....	.0488	87.0	.7500	106.5	2.2500	102.1	.0135	64.6	.2900	67.1
Average, 1903 .....	.0566	100.9	.6140	87.2	2.2479	102.0	.0129	61.7	.2877	66.6



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Food, etc.									
	Spices: pepper, Singapore.		Starch: pure corn.		Sugar: 89° fair refining.		Sugar: 96° centrifugal.		Sugar: granulated.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.0749	100.0	\$0.0548	100.0	\$0.03398	100.0	\$0.03869	100.0	\$0.04727	100.0
Jan .....	.1269	169.4	.0450	82.1	.03351	98.6	.03825	98.9	.04628	97.9
Feb .....	.1313	175.3	.0513	93.6	.03204	94.3	.03704	95.7	.04576	96.8
Mar .....	.1319	176.1	.0513	93.6	.03265	96.1	.03719	96.1	.04650	98.4
Apr .....	.1263	168.6	.0513	93.6	.03138	92.3	.03606	93.2	.04655	98.5
May .....	.1263	168.6	.0513	93.6	.03174	93.4	.03674	95.0	.04725	100.0
June .....	.1263	168.6	.0513	93.6	.03125	92.0	.03583	92.6	.04719	99.8
July .....	.1313	175.3	.0513	93.6	.03101	91.3	.03632	93.9	.04775	101.0
Aug .....	.1313	175.3	.0513	93.6	.03266	96.1	.03781	97.7	.04825	102.1
Sept .....	.1300	173.6	.0513	93.6	.03375	99.3	.03884	100.4	.04800	101.5
Oct .....	.1288	172.0	.0513	93.6	.03375	99.3	.03877	100.2	.04585	97.0
Nov .....	.1275	170.2	.0513	93.6	.03280	96.5	.03780	97.7	.04453	94.2
Dec .....	.1288	172.0	.0513	93.6	.03100	91.2	.03594	92.9	.04350	92.0
Average, 1903 .....	.1289	172.1	.0507	92.5	.03228	95.0	.03720	96.1	.04641	98.2

Month.	Food, etc.									
	Tallow.		Tea: Formosa, fine.		Vegetables, fresh: onions.		Vegetables, fresh: potatoes, Burbank.		Vinegar: cider, Monarch.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per barrel.	Relative price.	Price per bushel.	Relative price.	Price per gallon.	Relative price.
Average, 1890-1899..	\$0.0435	100.0	\$0.2839	100.0	\$3.3995	100.0	\$0.4991	100.0	\$0.1478	100.0
Jan .....	.0595	136.8	.2300	81.0	4.7500	139.7	.4650	93.2	.1300	88.0
Feb .....	.0600	137.9	.2300	81.0	4.0000	117.7	.4613	92.4	.1300	88.0
Mar .....	.0560	128.7	.2300	81.0	4.5000	132.4	.4488	89.9	.1300	88.0
Apr .....	.0544	125.1	.2300	81.0	6.0000	176.5	.4263	85.4	.1300	88.0
May .....	.0522	126.0	.2300	81.0	2.5000	73.5	.5160	103.4	.1300	88.0
June .....	.0500	114.9	.2250	79.3	2.7500	80.9	.7075	141.8	.1300	88.0
July .....	.0466	107.1	.2200	77.5	2.5600	75.3	(a)	.....	.1300	88.0
Aug .....	.0456	104.8	.2200	77.5	1.7500	51.5	(a)	.....	.1300	88.0
Sept .....	.0488	112.2	.2150	75.7	4.0000	117.7	(a)	.....	.1300	88.0
Oct .....	.0463	106.4	.2050	72.2	3.0000	88.2	.5817	116.5	.1300	88.0
Nov .....	.0450	103.4	.2600	91.6	3.5000	103.0	.6100	122.2	.1300	88.0
Dec .....	.0485	111.5	.2600	91.6	3.5000	103.0	.6300	126.2	.1300	88.0
Average, 1903 .....	.0510	117.2	.2296	80.9	3.5675	104.9	.5249	105.2	.1300	88.0

Month.	Cloths and clothing.									
	Bags: 2-bushel, Amoskeag.		Blankets: 11-4, 5 pounds to the pair, all wool.		Blankets: 11-4, 5 pounds to the pair, cotton warp, all-wool filling.		Blankets: 11-4, 5 pounds to the pair, cotton warp, cotton and wool filling.		Boots and shoes: men's brogans, split.	
	Price per bag.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pair.	Relative price.
Average, 1890-1899..	\$0.1399	100.0	\$0.840	100.0	\$0.613	100.0	\$0.424	100.0	\$0.9894	100.0
Jan .....	.1400	100.1	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Feb .....	.1400	100.1	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Mar .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Apr .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
May .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
June .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
July .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Aug .....	.1450	103.6	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Sept .....	.1500	107.2	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Oct .....	.1500	107.2	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Nov .....	.1500	107.2	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Dec .....	.1500	107.2	.925	110.1	.700	114.2	.500	117.9	.9250	93.5
Average, 1903 .....	.1458	104.2	.925	110.1	.700	114.2	.500	117.9	.9250	93.5

a No quotation for month.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Cloths and clothing.									
	Boots and shoes: men's calf bal. shoes, Goodyear welt.		Boots and shoes: men's split boots.		Boots and shoes: men's vici kid shoes, Goodyear welt.		Boots and shoes: women's solid grain shoes.		Broadcloths: first quality, black, 54-inch, XXX wool.	
	Price per pair.	Relative price.	Price per 12 pairs.	Relative price.	Price per pair.	Relative price.	Price per pair.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$2.376	100.0	\$16.350	100.0	\$2.30	100.0	\$0.8175	100.0	\$1.732	100.0
Jan .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
Feb .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
Mar .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
Apr .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
May .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
June .....	2.350	98.9	18.500	113.1	2.00	87.0	.8750	107.0	1.910	110.3
July .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Aug .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Sept .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Oct .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Nov .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Dec .....	2.350	98.9	18.500	113.1	2.00	87.0	.9000	110.1	1.910	110.3
Average, 1903 .....	2.350	98.9	18.500	113.1	2.00	87.0	.8875	108.6	1.910	110.3

Month.	Cloths and clothing.									
	Calico: Cochecho prints.		Carpets: Brussels, 5-frame, Bigelow.		Carpets: ingrain, 2-ply, Lowell.		Carpets: Wilton, 5-frame, Bigelow.		Cotton flannels: 2½ yards to the pound.	
	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$0.0553	100.0	\$1.0008	100.0	\$0.4752	100.0	\$1.8432	100.0	\$0.0706	100.0
Jan .....	.0500	90.4	1.0560	105.5	.5040	106.1	1.9440	105.5	.0675	95.6
Feb .....	.0500	90.4	1.0560	105.5	.5040	106.1	1.9440	105.5	.0675	95.6
Mar .....	.0500	90.4	1.0560	105.5	.5040	106.1	1.9440	105.5	.0675	95.6
Apr .....	.0500	90.4	1.0560	105.5	.5040	106.1	1.9440	105.5	.0675	95.6
May .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0700	99.2
June .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0700	99.2
July .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0725	102.7
Aug .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0750	106.2
Sept .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0775	109.8
Oct .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0800	113.3
Nov .....	.0500	90.4	1.1040	110.3	.5184	109.1	2.0400	110.7	.0825	116.9
Dec .....	.0550	99.5	1.1040	110.3	.5184	109.1	2.0400	110.7	.0850	120.4
Average, 1903 .....	.0504	91.1	1.0880	108.7	.5156	108.1	2.0080	108.9	.0785	104.1

Month.	Cloths and clothing.									
	Cotton flannels: 3½ yards to the pound.		Cotton thread: 6-cord, 200-yard spools, J. & P. Coats.		Cotton yarns: carded, white, mule-spun, Northern, cones, 10/1.		Cotton yarns: carded, white, mule-spun, Northern, cones, 22/1.		Denims: Amoskeag.	
	Price per yard.	Relative price.	Price per spool. <sup>a</sup>	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$0.0575	100.0	\$0.031008	100.0	\$0.1608	100.0	\$0.1969	100.0	\$0.1044	100.0
Jan .....	.0588	102.3	.037240	120.1	.1625	101.1	.1925	97.8	.1050	100.6
Feb .....	.0588	102.3	.037240	120.1	.1650	102.6	.1950	99.0	.1050	100.6
Mar .....	.0588	102.3	.037240	120.1	.1725	107.3	.2050	104.1	.1075	103.0
Apr .....	.0588	102.3	.037240	120.1	.1700	105.7	.2050	104.1	.1100	105.4
May .....	.0613	106.6	.037240	120.1	.1825	113.5	.2125	107.9	.1100	105.4
June .....	.0613	106.6	.037240	120.1	.1950	121.3	.2225	113.0	.1150	110.2
July .....	.0638	111.0	.037240	120.1	.2025	125.9	.2350	119.3	.1150	110.2
Aug .....	.0650	113.0	.037240	120.1	.2100	130.6	.2350	119.3	.1150	110.2
Sept .....	.0663	115.3	.037240	120.1	.2000	124.4	.2225	113.0	.1150	110.2
Oct .....	.0663	115.3	.037240	120.1	.1875	116.6	.2150	109.2	.1150	110.2
Nov .....	.0675	117.4	.037240	120.1	.1900	118.2	.2175	110.5	.1200	114.9
Dec .....	.0688	119.7	.037240	120.1	.2050	127.5	.2300	116.8	.1200	114.9
Average, 1903 .....	.0629	109.4	.037240	120.1	.1869	116.2	.2156	109.5	.1127	108.0

<sup>a</sup> Freight paid.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Cloths and clothing.									
	Drillings: brown, Pepperell.		Drillings: 30-inch, Stark A.		Flannels: white, 4-4, Ballard Vale No. 3.		Ginghams: Amoskeag.		Ginghams: Lancaster.	
	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$0. 0572	100. 0	\$0. 0521	100. 0	\$0. 3768	100. 0	\$0. 0533	100. 0	\$0. 0573	100. 0
Jan .....	. 0575	100. 5	. 0560	107. 5	. 4100	108. 8	. 0550	103. 2	. 0575	100. 3
Feb .....	. 0575	100. 5	. 0559	107. 3	. 4100	108. 8	. 0550	103. 2	. 0575	100. 3
Mar .....	. 0575	100. 5	. 0543	104. 2	. 4217	111. 9	. 0550	103. 2	. 0575	100. 3
Apr .....	. 0575	100. 5	. 0551	105. 8	. 4217	111. 9	. 0550	103. 2	. 0575	100. 3
May .....	. 0600	104. 9	. 0544	104. 4	. 4217	111. 9	. 0550	103. 2	. 0575	100. 3
June .....	. 0625	109. 3	. 0584	112. 1	. 4217	111. 9	. 0550	103. 2	. 0575	100. 3
July .....	. 0650	113. 6	. 0572	109. 8	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Aug .....	. 0650	113. 6	. 0608	116. 7	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Sept .....	. 0650	113. 6	. 0623	119. 6	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Oct .....	. 0650	113. 6	. 0599	115. 0	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Nov .....	. 0650	113. 6	. 0598	114. 8	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Dec .....	. 0650	113. 6	. 0625	120. 0	. 4433	117. 6	. 0550	103. 2	. 0575	100. 3
Average, 1903 .....	. 0619	108. 2	. 0581	111. 5	. 4306	114. 3	. 0550	103. 2	. 0575	100. 3

Month.	Cloths and clothing.									
	Horse blankets: 6 pounds each, all wool.		Hosiery: men's cotton half hose, seamless, fast black, 20 to 22 ounce.		Hosiery: men's cotton half hose, seamless, 84 needles.		Hosiery: women's combed Egyptian cotton hose, high spliced heel.		Hosiery: women's cotton hose, seamless, fast black, 26 to 28 ounce.	
	Price per pound.	Relative price.	Price per 12 pairs.	Relative price.	Price per 12 pairs.	Relative price.	Price per 12 pairs.	Relative price.	Price per 12 pairs.	Relative price.
Average, 1890-1899..	\$0. 573	100. 0	\$0. 9555	100. 0	\$0. 7845	100. 0	<sup>a</sup> \$1. 850	100. 0	\$0. 9310	100. 0
Jan .....	. 675	117. 8	<sup>b</sup> . 7350	<sup>b</sup> 76. 9	. 6750	86. 0	1. 875	101. 4	<sup>b</sup> . 7350	<sup>b</sup> 78. 9
Feb .....	. 675	117. 8	<sup>b</sup> . 7350	<sup>b</sup> 76. 9	. 6750	86. 0	1. 875	101. 4	<sup>b</sup> . 7350	<sup>b</sup> 78. 9
Mar .....	. 675	117. 8	<sup>b</sup> . 7350	<sup>b</sup> 76. 9	. 6750	86. 0	1. 875	101. 4	<sup>b</sup> . 7350	<sup>b</sup> 78. 9
Apr .....	. 675	117. 8	. 7350	76. 9	. 7000	89. 2	1. 875	101. 4	. 7595	81. 6
May .....	. 675	117. 8	<sup>c</sup> . 7350	<sup>c</sup> 76. 9	. 7000	89. 2	1. 875	101. 4	<sup>c</sup> . 7595	<sup>c</sup> 81. 6
June .....	. 675	117. 8	<sup>c</sup> . 7350	<sup>c</sup> 76. 9	. 7000	89. 2	1. 875	101. 4	<sup>c</sup> . 7595	<sup>c</sup> 81. 6
July .....	. 675	117. 8	<sup>c</sup> . 7350	<sup>c</sup> 76. 9	. 7250	92. 4	1. 875	101. 4	<sup>c</sup> . 7595	<sup>c</sup> 81. 6
Aug .....	. 675	117. 8	<sup>c</sup> . 7350	<sup>c</sup> 76. 9	. 7250	92. 4	1. 875	101. 4	<sup>c</sup> . 7595	<sup>c</sup> 81. 6
Sept .....	. 675	117. 8	. 7840	82. 1	. 7250	92. 4	1. 875	101. 4	. 8085	86. 8
Oct .....	. 675	117. 8	<sup>d</sup> . 7840	<sup>d</sup> 82. 1	. 7250	92. 4	1. 875	101. 4	<sup>d</sup> . 8085	<sup>d</sup> 86. 8
Nov .....	. 675	117. 8	<sup>d</sup> . 7840	<sup>d</sup> 82. 1	. 7250	92. 4	1. 875	101. 4	<sup>d</sup> . 8085	<sup>d</sup> 86. 8
Dec .....	. 675	117. 8	<sup>d</sup> . 7840	<sup>d</sup> 82. 1	. 7250	92. 4	1. 875	101. 4	<sup>d</sup> . 8085	<sup>d</sup> 86. 8
Average, 1903 .....	. 675	117. 8	<sup>e</sup> . 7840	<sup>e</sup> 82. 1	. 7063	90. 0	1. 875	101. 4	<sup>e</sup> . 8085	<sup>e</sup> 86. 8

Month.	Cloths and clothing.									
	Leather: harness, oak, packers' hides, heavy, No. 1.		Leather: sole, hemlock, non-acid, Buenos Ayres.		Leather: sole, oak.		Leather: wax calf, 30 to 40 lbs. to the dozen, B grade.		Linen shoe thread: 10s Barbour.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per sq. foot.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	<sup>f</sup> \$0. 2590	100. 0	\$0. 1939	100. 0	\$0. 3363	100. 0	\$0. 6545	100. 0	\$0. 8748	100. 0
Jan .....	. 3400	<sup>g</sup> 117. 3	. 2300	118. 6	. 3800	113. 0	. 6600	100. 8	. 8460	96. 7
Feb .....	. 3400	<sup>g</sup> 117. 3	. 2300	118. 6	. 3400	101. 1	. 6600	100. 8	. 8460	96. 7
Mar .....	. 3400	<sup>g</sup> 117. 3	. 2300	118. 6	. 3950	117. 5	. 6600	100. 8	. 8460	96. 7
Apr .....	. 3400	<sup>g</sup> 117. 3	. 2200	113. 5	. 3900	116. 0	. 7000	107. 0	. 8460	96. 7
May .....	. 3200	<sup>g</sup> 110. 4	. 2200	113. 5	. 3850	114. 5	. 7000	107. 0	. 8460	96. 7
June .....	. 3200	<sup>g</sup> 110. 4	. 2200	113. 5	. 3850	114. 5	. 7000	107. 0	. 8460	96. 7
July .....	. 3200	<sup>g</sup> 110. 4	. 2200	113. 5	. 3800	113. 0	. 7000	107. 0	. 8460	96. 7
Aug .....	. 3500	<sup>g</sup> 120. 7	. 2300	118. 6	. 3700	110. 0	. 7000	107. 0	. 8460	96. 7
Sept .....	. 3450	<sup>g</sup> 119. 0	. 2300	118. 6	. 3700	110. 0	. 7000	107. 0	. 8460	96. 7
Oct .....	. 3200	<sup>g</sup> 110. 4	. 2300	118. 6	. 3700	110. 0	. 7000	107. 0	. 8460	96. 7
Nov .....	. 3200	<sup>g</sup> 110. 4	. 2300	118. 6	. 3650	108. 5	. 7000	107. 0	. 8460	96. 7
Dec .....	. 3200	<sup>g</sup> 110. 4	. 2300	118. 6	. 3600	107. 0	. 7000	107. 0	. 8460	96. 7
Average, 1903 .....	. 3313	<sup>g</sup> 114. 3	. 2267	116. 9	. 3742	111. 3	. 6900	105. 4	. 8460	96. 7

<sup>a</sup>Average for 1893-1899. <sup>b</sup>September, 1902, price. <sup>c</sup>April, 1903, price. <sup>d</sup>September, 1903, price.  
<sup>e</sup>September, 1903, price. Represents bulk of sales.  
<sup>f</sup>Leather: harness, oak, country middles, 14 pounds and up (except overweights, 20 pounds and up).  
<sup>g</sup>For method of computing relative price see pages 241 and 242. Average price for 1901 and 1902, \$0.3325.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Cloths and clothing.									
	Linen thread: 3-cord, 200-yard spools, Barbour.		Overcoatings: beaver, Mos- cow, all wool, black.		Overcoatings: chinchilla, B-rough, all wool.		Overcoatings: chinchilla, cotton warp, C. C. grade.		Overcoatings: covert cloth, light weight, staple.	
	Price per dozen spools.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.8522	100.0	\$2.0817	100.0	\$2.1419	100.0	\$0.4883	100.0	\$2.3286	100.0
Jan .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4400	90.1	2.1899	94.0
Feb .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Mar .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Apr .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
May .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
June .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
July .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Aug .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Sept .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Oct .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4650	95.2	2.1899	94.0
Nov .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4550	93.2	2.1899	94.0
Dec .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4400	90.1	2.1899	94.0
Average, 1903 .....	.8370	98.2	2.4413	117.3	2.2088	103.1	.4533	92.8	2.1899	94.0

Month.	Cloths and clothing.									
	Overcoatings: kersey, stand- ard, 27 to 28 ounce.		Print cloths: 28-inch, 64 x 64.		Shawls: stand- ard, all wool, 72 x 144 inch, 42-ounce.		Sheetings: bleached, 10-4, Atlantic.		Sheetings: bleached, 10-4, Pepperell.	
	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price each.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.
Average, 1890-1899..	\$1.2472	100.0	\$0.02838	100.0	\$4.5787	100.0	\$0.1836	100.0	\$0.1884	100.0
Jan .....	1.5750	126.3	.030676	108.1	4.9000	107.0	.1995	108.7	.2200	116.8
Feb .....	1.5750	126.3	.032500	114.5	4.9000	107.0	.1962	106.9	.2200	116.8
Mar .....	1.5750	126.3	.032500	114.5	4.9000	107.0	.1981	107.9	.2200	116.8
Apr .....	1.5750	126.3	.031406	110.7	4.9000	107.0	.1973	107.5	.2200	116.8
May .....	1.5750	126.3	.030875	108.8	4.9000	107.0	.2112	115.0	.2200	116.8
June .....	1.5750	126.3	.032344	114.0	4.9000	107.0	.2258	123.0	.2300	122.1
July .....	1.5750	126.3	.032188	113.4	4.9000	107.0	.2271	123.7	.2300	122.1
Aug .....	1.5750	126.3	.032250	113.6	4.9000	107.0	.2247	122.4	.2300	122.1
Sept .....	1.5750	126.3	.033438	117.8	4.9000	107.0	(b)	.....	.2300	122.1
Oct .....	1.5750	126.3	.032000	112.8	4.9000	107.0	.2325	126.6	.2300	122.1
Nov .....	1.5750	126.3	.032344	114.0	4.9000	107.0	.2114	115.1	.2400	127.4
Dec .....	1.5750	126.3	.034054	120.0	4.9000	107.0	(b)	.....	.2400	127.4
Average, 1903 .....	1.5750	126.3	.032156	113.3	4.9000	107.0	.2124	115.7	.2275	120.8

Month.	Cloths and clothing.									
	Sheetings: bleached, 10-4, Wamsutta S. T.		Sheetings: brown, 4-4, Atlantic A.		Sheetings: brown, 4-4, Indian Head.		Sheetings: brown, 4-4, Mass. Mills, Flying Horse brand.		Sheetings: brown, 4-4, Pepperell R.	
	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.	Price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.2949	100.0	\$0.0553	100.0	\$0.0626	100.0	\$0.0525	100.0	\$0.0551	100.0
Jan .....	.2925	99.2	.0588	106.3	.0625	99.8	.0575	d94.1	.0563	102.2
Feb .....	.2925	99.2	.0598	108.1	.0650	103.8	.0588	d96.2	.0575	104.4
Mar .....	.2925	99.2	.0611	110.5	.0650	103.8	.0600	d98.2	.0575	104.4
Apr .....	.2925	99.2	.0614	111.0	.0650	103.8	.0600	d98.2	.0575	104.4
May .....	.2925	99.2	.0620	112.1	.0650	103.8	.0613	d100.3	.0575	104.4
June .....	.2925	99.2	.0640	115.7	.0675	107.8	.0625	d102.2	.0600	108.9
July .....	.3150	106.8	.0642	116.1	.0700	111.8	.0625	d102.2	.0600	108.9
Aug .....	.3150	106.8	.0656	118.6	.0700	111.8	.0625	d102.2	.0625	113.4
Sept .....	.3150	106.8	.0665	120.3	.0700	111.8	.0650	d106.3	.0625	113.4
Oct .....	.3150	106.8	.0661	119.5	.0700	111.8	.0650	d106.3	.0625	113.4
Nov .....	.3150	106.8	.0660	119.3	.0725	115.8	.0650	d106.3	.0625	113.4
Dec .....	.3150	106.8	.0673	121.7	.0750	119.8	.0675	d110.4	.0625	113.4
Average, 1903 .....	.3038	103.0	.0636	115.0	.0681	108.8	.0623	d101.9	.0599	108.7

a Average for 1897-1899.

b No sales during month.

c Sheetings: brown, 4-4. Stark A.A.

d For method of computing relative price, see pages 241 and 242. Average price for 1901, \$0.0575; for 1902, \$0.0566.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Cloths and clothing.									
	Shirtings: bleached, 4-4, Fruit of the Loom.		Shirtings: bleached, 4-4, Hope.		Shirtings: bleached, 4-4, Lonsdale.		Shirtings: bleached, 4-4, New York Mills.		Shirtings: bleached, 4-4, Wamsutta $\begin{smallmatrix} < o > \\ XX \end{smallmatrix}$ .	
	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$0.0728	100.0	\$0.0630	100.0	\$0.0727	100.0	\$0.0876	100.0	\$0.0948	100.0
Jan .....	.0738	101.4	.0641	101.7	.0713	98.1	.0812	92.7	.0950	100.2
Feb .....	.0738	101.4	.0653	103.7	.0725	99.7	.0829	94.6	.0950	100.2
Mar .....	.0750	103.0	.0665	105.6	.0725	99.7	.0790	90.2	.0950	100.2
Apr .....	.0750	103.0	.0665	105.6	.0750	103.2	.0810	92.5	.0950	100.2
May .....	.0763	104.8	.0665	105.6	.0750	103.2	.0839	95.8	.0950	100.2
June .....	.0763	104.8	.0665	105.6	.0750	103.2	.0803	91.7	.0950	100.2
July .....	.0763	104.8	.0689	109.4	.0775	106.6	.0842	96.1	.0997	105.2
Aug .....	.0788	108.2	.0689	109.4	.0775	106.6	.0819	93.5	.0997	105.2
Sept .....	.0788	108.2	.0689	109.4	.0775	106.6	.0933	106.5	.0997	105.2
Oct .....	.0788	108.2	.0689	109.4	.0775	106.6	.0889	101.5	.0997	105.2
Nov .....	.0788	108.2	.0689	109.4	.0775	106.6	.0935	106.7	.0997	105.2
Dec .....	.0788	108.2	.0701	111.3	.0775	106.6	.0896	102.3	.0997	105.2
Average, 1903 .....	.0767	105.4	.0675	107.1	.0755	103.9	.0850	97.0	.0974	102.7

Month.	Cloths and clothing.									
	Silk: raw, Italian, classical.		Silk: raw, Japan, filatures.		Suitsings: clay worsted diagonal, 12-ounce, Wash. Mills.		Suitsings: clay worsted diagonal, 16-ounce, Wash. Mills.		Suitsings: indigo blue, all wool, 54-in., 14-oz., Middlesex.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	\$4.2558	100.0	\$4.0187	100.0	<sup>a</sup> \$0.8236	100.0	<sup>a</sup> \$1.0068	100.0	\$1.3230	100.0
Jan .....	4.3808	102.9	4.2074	104.7	.9675	117.5	1.1475	114.0	1.4400	108.8
Feb .....	4.3808	102.9	4.2559	105.9	.9675	117.5	1.1475	114.0	1.4400	108.8
Mar .....	4.3808	102.9	4.2680	106.2	.9675	117.5	1.1475	114.0	1.4400	108.8
Apr .....	4.3808	102.9	4.1710	103.8	.9675	117.5	1.1475	114.0	1.4400	108.8
May .....	4.4550	104.7	4.1225	102.6	.9675	117.5	1.1475	114.0	1.4400	108.8
June .....	4.6530	109.3	4.2074	104.7	.9675	117.5	1.1475	114.0	1.4400	108.8
July .....	4.6530	109.3	4.1710	103.8	.9675	117.5	1.1475	114.0	1.4400	108.8
Aug .....	4.6035	108.2	4.1468	103.2	.9225	112.0	1.1025	109.5	1.4400	108.8
Sept .....	4.6778	109.9	4.1589	103.5	.9225	112.0	1.1025	109.5	1.4400	108.8
Oct .....	4.7025	110.5	4.1710	103.8	.9225	112.0	1.1025	109.5	1.4400	108.8
Nov .....	4.6530	109.3	4.0013	99.6	.9225	112.0	1.1025	109.5	1.4400	108.8
Dec .....	4.3684	102.6	3.7345	92.9	.9225	112.0	1.1025	109.5	1.4400	108.8
Average, 1903 .....	4.5241	106.3	4.1346	102.9	.9488	115.2	1.1288	112.1	1.4400	108.8

Month.	Cloths and clothing.									
	Suitsings: indigo blue, all wool, 16-ounce.		Suitsings: serge, Washington Mills 6700.		Tickings: Amoskeag A. C. A.		Trouserings: fancy worsted, 21 to 22 ounce.		Underwear: shirts and drawers, white, all wool, etc.	
	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per 12 garments.	Relative price.
Average, 1890-1899..	\$1.9154	100.0	<sup>b</sup> \$0.7526	100.0	\$0.1061	100.0	<sup>c</sup> \$1.9456	100.0	\$23.31	100.0
Jan .....	2.1576	112.6	.7650	101.6	.1050	99.0	2.0925	<sup>d</sup> 104.6	23.40	100.4
Feb .....	2.1576	112.6	.7650	101.6	.1050	99.0	2.0925	<sup>d</sup> 104.6	23.40	100.4
Mar .....	2.1576	112.6	.7650	101.6	.1050	99.0	2.0925	<sup>d</sup> 104.6	23.40	100.4
Apr .....	2.1576	112.6	.7650	101.6	.1050	99.0	2.0925	<sup>d</sup> 104.6	23.40	100.4
May .....	2.1576	112.6	.7650	101.6	.1050	99.0	2.0925	<sup>d</sup> 104.6	23.40	100.4
June .....	2.1576	112.6	.7650	101.6	.1100	103.7	2.0925	<sup>d</sup> 104.6	23.40	100.4
July .....	2.1576	112.6	.7650	101.6	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Aug .....	2.1576	112.6	.7425	98.7	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Sept .....	2.1576	112.6	.7425	98.7	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Oct .....	2.1576	112.6	.7425	98.7	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Nov .....	2.1576	112.6	.7425	98.7	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Dec .....	2.1576	112.6	.7425	98.7	.1150	108.4	2.0925	<sup>d</sup> 104.6	23.40	100.4
Average, 1903 .....	2.1576	112.6	.7556	100.4	.1104	104.1	2.0925	<sup>d</sup> 104.6	23.40	100.4

<sup>a</sup> Average for 1895-1899.

<sup>b</sup> Average for 1892-1899.

<sup>c</sup> Average for 1892-1899; 22 to 23 ounce.

<sup>d</sup> For method of computing relative price, see pages 241 and 242.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Cloths and clothing.									
	Underwear: shirts and drawers, white, merino, 60% wool, etc.		Women's dress goods: alpaca, cotton warp, 22-inch, Hamilton.		Women's dress goods: cashmere, all wool, 10-11 twill, 38-inch, Atlantic J.		Women's dress goods: cashmere, cotton warp, 9-twill, 4-4, Atlantic F.		Women's dress goods: cashmere, cotton warp, 22-inch, Hamilton.	
	Price per 12 garments.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per yard.	Relative price.
Average, 1890-1899..	<sup>a</sup> \$15.57	100.0	\$0.0680	100.0	\$0.2905	100.0	\$0.1520	100.0	\$0.0758	100.0
Jan .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
Feb .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
Mar .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
Apr .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
May .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
June .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3234	111.3	.1642	108.0	.0735	97.0
July .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3406	117.2	.1715	112.8	.0735	97.0
Aug .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3406	117.2	.1715	112.8	.0735	97.0
Sept .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3406	117.2	.1715	112.8	.0735	97.0
Oct .....	16.20	<sup>b</sup> 95.4	.0686	100.9	.3406	117.2	.1715	112.8	.0760	100.3
Nov .....	16.20	<sup>b</sup> 95.4	.0711	104.6	.3406	117.2	.1715	112.8	.0760	100.3
Dec .....	16.20	<sup>b</sup> 95.4	.0711	104.6	.3406	117.2	.1715	112.8	.0760	100.3
Average, 1903 .....	16.20	<sup>b</sup> 95.4	.0690	101.5	.3320	114.3	.1679	110.5	.0741	97.8

Month.	Cloths and clothing.									
	Women's dress goods: cashmere, cotton warp, 27-inch, Hamilton.		Women's dress goods: Franklin sackings, 6-4.		Wool: Ohio, fine fleece (X and XX grade), scoured.		Wool: Ohio, medium fleece ( $\frac{1}{4}$ and $\frac{3}{8}$ grade), scoured.		Worsted yarns: 2-40s, Australian fine.	
	Price per yard.	Relative price.	Price per yard.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.0883	100.0	\$0.5151	100.0	\$0.5526	100.0	\$0.4564	100.0	\$1.0183	100.0
Jan .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6383	115.5	.4627	101.4	1.2000	117.8
Feb .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6489	117.4	.4701	103.0	1.2000	117.8
Mar .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6383	115.5	.4627	101.4	1.2000	117.8
Apr .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6277	113.6	.4552	99.7	1.2000	117.8
May .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6064	109.7	.4403	96.5	1.1750	115.4
June .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6170	111.7	.4478	98.1	1.1750	115.4
July .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6721	121.6	.4701	103.0	1.1750	115.4
Aug .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6721	121.6	.4701	103.0	1.1750	115.4
Sept .....	.0882	99.9	.5937 $\frac{1}{2}$	115.3	.6809	123.2	.4701	103.0	1.1750	115.4
Oct .....	.0931	105.4	.5937 $\frac{1}{2}$	115.3	.6809	123.2	.4701	103.0	1.1500	112.9
Nov .....	.0931	105.4	.5700	110.7	.6809	123.2	.4851	106.3	1.1500	112.9
Dec .....	.0931	105.4	.5700	110.7	.6915	125.1	.4851	106.3	1.1500	112.9
Average, 1903 .....	.0894	101.2	.5898	114.5	.6546	118.5	.4658	102.1	1.1771	115.6

Month.	Cloths and clothing.		Fuel and lighting.							
	Worsted yarns: 2-40s, XXXX, white, in skeins.		Candles: adamantine, 6s, 14-ounce.		Coal: anthracite, broken.		Coal: anthracite, chestnut.		Coal: anthracite, egg.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.
Average, 1890-1899..	\$1.0071	100.0	\$0.0782	100.0	\$3.3669	100.0	\$3.5953	100.0	\$3.5936	100.0
Jan .....	1.2300	122.1	.1100	140.7	3.9550	117.5	4.9500	137.7	4.9500	137.7
Feb .....	1.2300	122.1	.1100	140.7	4.0000	118.8	4.9500	137.7	4.9500	137.7
Mar .....	1.2300	122.1	.1100	140.7	3.9730	118.0	4.9520	137.7	4.9500	137.7
Apr .....	1.2300	122.1	.1100	140.7	4.2070	125.0	4.4510	123.8	4.4520	123.9
May .....	1.2300	122.1	.1100	140.7	4.3040	127.8	4.5510	126.6	4.5480	126.6
June .....	1.2000	119.2	.1100	140.7	4.4015	130.7	4.6445	129.2	4.6487	129.4
July .....	1.2000	119.2	.0850	108.7	4.4608	132.5	4.7503	132.1	4.7528	132.3
Aug .....	1.2000	119.2	.0900	115.1	4.4744	132.9	4.8504	134.9	4.8500	135.0
Sept .....	1.2000	119.2	.0900	115.1	4.4326	131.7	4.9500	137.7	4.9500	137.7
Oct .....	1.2000	119.2	.0900	115.1	4.2633	126.6	4.9504	137.7	4.9500	137.7
Nov .....	1.2000	119.2	.0900	115.1	4.2478	126.2	4.9518	137.7	4.9500	137.7
Dec .....	1.2000	119.2	.0900	115.1	4.2753	127.0	4.9502	137.7	4.9500	137.7
Average, 1903 .....	1.2125	120.4	.0996	127.4	4.2496	126.2	4.8251	134.2	4.8251	134.3

<sup>a</sup> 52 per cent wool and 48 per cent cotton.<sup>b</sup> For method of computing relative price, see page 242.



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Fuel and lighting.									
	Coal: anthracite, stove.		Coal: bituminous, Georges Creek (at mine).		Coal: bituminous, Georges Creek (f. o. b. N. Y. Harbor.)		Coal: bituminous, Pittsburg (Youghiogheny).		Coke: Connells-ville, furnace.	
	Price per ton.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.	Price per bushel.	Relative price.	Price per ton.	Relative price.
Average, 1890-1899..	\$3.7949	100.0	\$0.8887	100.0	\$2.7429	100.0	\$0.0643	100.0	\$1.6983	100.0
Jan .....	4.9500	130.4	4.0000	450.1	7.9500	289.8	.1000	155.5	4.0000	235.5
Feb .....	4.9500	130.4	4.5000	506.4	6.5000	237.0	.1000	155.5	4.0000	235.5
Mar .....	4.9500	130.4	2.5000	281.3	4.2000	153.1	.1000	155.5	4.0000	235.5
Apr .....	4.4500	117.3	2.2500	253.2	4.2000	153.1	.0900	140.0	3.8750	228.2
May .....	4.5500	119.9	2.0000	225.0	3.8500	140.4	.0900	140.0	3.5000	206.1
June .....	4.6415	122.3	2.0000	225.0	3.8500	140.4	.0900	140.0	2.8750	169.3
July .....	4.7501	125.2	2.0000	225.0	3.8500	140.4	.0900	140.0	2.7500	161.9
Aug .....	4.8507	127.8	2.0000	225.0	3.8500	140.4	.0900	140.0	2.2500	132.5
Sept .....	4.9500	130.4	2.0000	225.0	3.8500	140.4	.0900	140.0	2.1250	125.1
Oct .....	4.9500	130.4	2.0000	225.0	3.8500	140.4	.0900	140.0	2.1250	125.1
Nov .....	4.9510	130.5	1.7500	196.9	3.6500	133.1	.0900	140.0	1.8750	110.4
Dec .....	4.9502	130.4	1.7500	196.9	3.6500	133.1	.0900	140.0	1.5750	92.7
Average, 1903 .....	4.8245	127.1	2.3958	269.6	4.4375	161.8	.0925	143.9	2.9125	171.5

Month.	Fuel and lighting.								Metals and implements.	
	Matches: parlor, domestic.		Petroleum: crude.		Petroleum: refined, for export.		Petroleum: refined, 150° fire test, w.w.		Augers: extra, ¾-inch.	
	Price per gross of boxes (200s).	Relative price.	Price per barrel.	Relative price.	Price per gallon.	Relative price.	Price per gallon.	Relative price.	Price each.	Relative price.
Average, 1890-1899..	\$1.7563	100.0	\$0.9102	100.0	\$0.0649	100.0	\$0.0890	100.0	\$0.1608	100.0
Jan .....	1.5000	85.4	1.5250	167.5	.0830	127.9	.1300	146.1	.2310	143.7
Feb .....	1.5000	85.4	1.5000	164.8	.0820	126.3	.1300	146.1	.2310	143.7
Mar .....	1.5000	85.4	1.5000	164.8	.0820	126.3	.1300	146.1	.2310	143.7
Apr .....	1.5000	85.4	1.5100	165.9	.0835	128.7	.1350	151.7	.2310	143.7
May .....	1.5000	85.4	1.5150	166.4	.0835	128.7	.1350	151.7	.2310	143.7
June .....	1.5000	85.4	1.5000	164.8	.0855	131.7	.1350	151.7	.2310	143.7
July .....	1.5000	85.4	1.5250	167.5	.0855	131.7	.1350	151.7	.2310	143.7
Aug .....	1.5000	85.4	1.5600	171.4	.0855	131.7	.1350	151.7	.2310	143.7
Sept .....	1.5000	85.4	1.5725	172.8	.0855	131.7	.1350	151.7	.2310	143.7
Oct .....	1.5000	85.4	1.6850	185.1	.0880	135.6	.1350	151.7	.2310	143.7
Nov .....	1.5000	85.4	1.7875	196.4	.0930	143.3	.1500	168.5	.2310	143.7
Dec .....	1.5000	85.4	1.8838	207.0	.0950	146.4	.1500	168.5	.2310	143.7
Average, 1903 .....	1.5000	85.4	1.5886	174.5	.0860	132.5	.1363	153.1	.2310	143.7

Month.	Metals and implements.									
	Axes: M. C. O., Yankee.		Bar iron: best refined, from mill (Pittsburg market).		Bar iron: best refined, from store (Philadelphia market).		Barb wire: galvanized.		Butts: loose joint, cast, 3 x 3 inch.	
	Price each.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per 100 pounds.	Relative price.	Price per pair.	Relative price.
Average, 1890-1899..	\$0.4693	100.0	\$0.0145	100.0	\$0.0164	100.0	\$2.5261	100.0	\$0.0316	100.0
Jan .....	.5100	108.7	.0200	137.9	.0220	134.1	2.6800	106.1	.0400	126.6
Feb .....	.5100	108.7	.0200	137.9	.0220	134.1	2.7500	108.9	.0400	126.6
Mar .....	.5100	108.7	.0200	137.9	.0220	134.1	2.8000	110.8	.0400	126.6
Apr .....	.5100	108.7	.0200	137.9	.0220	134.1	2.7700	109.7	.0400	126.6
May .....	.5100	108.7	.0200	137.9	.0216	131.7	2.7500	108.9	.0400	126.6
June .....	.5100	108.7	.0177	122.1	.0208	126.8	2.7500	108.9	.0400	126.6
July .....	.5000	106.5	.0170	117.2	.0201	122.6	2.7500	108.9	.0400	126.6
Aug .....	.5000	106.5	.0170	117.2	.0193	117.7	2.7500	108.9	.0400	126.6
Sept .....	.5000	106.5	.0170	117.2	.0181	110.4	2.7500	108.9	.0400	126.6
Oct .....	.5000	106.5	.0170	117.2	.0181	110.4	2.7500	108.9	.0400	126.6
Nov .....	.5000	106.5	.0134	92.4	.0171	104.3	2.7500	108.9	.0400	126.6
Dec .....	.5000	106.5	.0130	89.7	.0171	104.3	2.6000	102.9	.0400	126.6
Average, 1903 .....	.5050	107.6	.0177	122.1	.0200	122.0	2.7375	108.4	.0400	126.6



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Metals and implements.									
	Chisels: extra, socket firmer, 1-inch.		Copper: ingot, lake.		Copper: sheet, hot-rolled (base sizes).		Copper wire: bare.		Doorknobs: steel, bronze plated.	
	Price each.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pair.	Relative price.
Average, 1890-1899..	\$0.1894	100.0	\$0.1234	100.0	\$0.1659	100.0	\$0.1464	100.0	\$0.1697	100.0
Jan .....	.2800	147.8	.1219	98.8	.1800	108.5	.1363	93.1	.2250	132.6
Feb .....	.2800	147.8	.1268	102.8	.1800	108.5	.1425	97.3	.2250	132.6
Mar .....	.2800	147.8	.1363	110.5	.2000	120.6	.1588	108.5	.2250	132.6
Apr .....	.2800	147.8	.1513	122.6	.2000	120.6	.1638	111.9	.2250	132.6
May .....	.2800	147.8	.1500	121.6	.2000	120.6	.1613	110.2	.2250	132.6
June .....	.2800	147.8	.1488	120.6	.2000	120.6	.1588	108.5	.2250	132.6
July .....	.2800	147.8	.1425	115.5	.2000	120.6	.1488	101.6	.2250	132.6
Aug .....	.2800	147.8	.1313	106.4	.2000	120.6	.1475	100.8	.2250	132.6
Sept .....	.2800	147.8	.1381	111.9	.2000	120.6	.1475	100.8	.2250	132.6
Oct .....	.2800	147.8	.1331	107.9	.1800	108.5	.1450	99.0	.2250	132.6
Nov .....	.2800	147.8	.1388	112.5	.1800	108.5	.1438	98.2	.2250	132.6
Dec .....	.2800	147.8	.1225	99.3	.1800	108.5	.1425	97.3	.2250	132.6
Average, 1903 .....	.2800	147.8	.1368	110.9	.1917	115.6	.1497	102.3	.2250	132.6

Month.	Metals and implements.									
	Files: 8-inch mill bastard.		Hammers: Maydole No. 1½.		Lead: pig.		Lead pipe.		Locks: common mortise.	
	Price per dozen.	Relative price.	Price each.	Relative price.	Price per pound.	Relative price.	Price per 100 lbs.	Relative price.	Price each.	Relative price.
Average, 1890-1899..	\$0.8527	100.0	\$0.3613	100.0	\$0.0381	100.0	\$4.8183	100.0	\$0.0817	100.0
Jan .....	1.0500	123.1	.4660	129.0	.0411	107.9	5.2000	107.9	.0900	110.2
Feb .....	1.0500	123.1	.4660	129.0	.0413	108.4	5.4000	112.1	.0900	110.2
Mar .....	1.0500	123.1	.4660	129.0	.0413	108.4	5.5500	115.2	.0900	110.2
Apr .....	1.0500	123.1	.4660	129.0	.0467	122.6	5.7000	118.3	.0900	110.2
May .....	1.0500	123.1	.4660	129.0	.0438	115.0	5.4000	112.1	.0900	110.2
June .....	1.0500	123.1	.4660	129.0	.0438	115.0	5.1500	106.9	.0900	110.2
July .....	1.0500	123.1	.4660	129.0	.0411	107.9	5.0500	104.8	.0900	110.2
Aug .....	1.0500	123.1	.4660	129.0	.0420	110.2	5.0500	104.8	.0900	110.2
Sept .....	1.0500	123.1	.4660	129.0	.0411	107.9	4.9000	101.7	.0900	110.2
Oct .....	1.0500	123.1	.4660	129.0	.0445	116.8	5.1000	105.8	.0900	110.2
Nov .....	1.0500	123.1	.4660	129.0	.0445	116.8	5.1000	105.8	.0900	110.2
Dec .....	1.0500	123.1	.4660	129.0	.0425	111.5	5.1000	105.8	.0900	110.2
Average, 1903 .....	1.0500	123.1	.4660	129.0	.0428	112.3	5.1958	107.8	.0900	110.2

Month.	Metals and implements.									
	Nails: cut, 8-penny, fence and common.		Nails: wire, 8-penny, fence and common.		Pig iron: Bessemer.		Pig iron: foundry No. 1.		Pig iron: foundry No. 2.	
	Price per 100 lbs.	Relative price.	Price per 100 lbs.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.
Average, 1890-1899..	\$1.8275	100.0	\$2.1618	100.0	\$13.7783	100.0	\$14.8042	100.0	\$13.0533	100.0
Jan .....	2.1500	117.6	2.0000	92.5	22.8500	165.8	24.0000	162.1	23.7500	181.9
Feb .....	2.2000	120.4	2.0000	92.5	21.9100	159.0	23.7500	160.4	22.7500	174.3
Mar .....	2.2000	120.4	2.1000	97.1	21.8500	158.6	23.5000	158.7	22.8500	175.1
Apr .....	2.2500	123.1	2.1000	97.1	21.2800	154.4	22.7000	153.3	21.8500	167.4
May .....	2.2500	123.1	2.1000	97.1	20.0100	145.2	21.3700	144.4	21.2500	162.8
June .....	2.2500	123.1	2.1000	97.1	19.7200	143.1	20.6200	139.3	20.7500	159.0
July .....	2.2500	123.1	2.1000	97.1	18.9300	137.4	19.0000	128.3	19.8750	152.3
Aug .....	2.2500	123.1	2.1000	97.1	18.3500	133.2	18.0000	121.6	17.5000	134.1
Sept .....	2.2500	123.1	2.1000	97.1	17.2200	125.0	17.5000	118.2	15.6250	119.7
Oct .....	2.2500	123.1	2.1000	97.1	16.0000	116.1	16.7000	112.8	15.0000	114.9
Nov .....	2.0500	112.2	2.1000	97.1	15.1900	110.2	16.0000	108.1	14.5000	111.1
Dec .....	2.0000	109.4	2.0000	92.5	14.4000	104.5	15.8500	107.1	14.0000	107.3
Average, 1903 .....	2.1958	120.2	2.0750	96.0	18.9758	137.7	19.9158	134.5	19.1417	146.6



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Metals and implements.									
	Pig iron: gray forge, Southern, coke.		Planes: Bailey No. 5.		Quicksilver.		Saws: crosscut, Disston.		Saws: hand, Disston No. 7.	
	Price per ton.	Relative price.	Price each.	Relative price.	Price per pound.	Relative price.	Price each.	Relative price.	Price per dozen.	Relative price.
Average, 1890-1899..	\$11. 0892	100. 0	\$1. 3220	100. 0	\$0. 5593	100. 0	\$1. 6038	100. 0	\$12. 780	100. 0
Jan .....	21. 0000	189. 4	1. 5300	115. 7	. 6400	114. 4	1. 6038	100. 0	12. 600	98. 6
Feb .....	20. 2500	182. 6	1. 5300	115. 7	. 6350	113. 5	1. 6038	100. 0	12. 600	98. 6
Mar .....	20. 2500	182. 6	1. 5300	115. 7	. 6350	113. 5	1. 6038	100. 0	12. 600	98. 6
Apr .....	19. 2500	173. 6	1. 5300	115. 7	. 6400	114. 4	1. 6038	100. 0	12. 600	98. 6
May .....	18. 2500	164. 6	1. 5300	115. 7	. 6450	115. 3	1. 6038	100. 0	12. 600	98. 6
June .....	16. 5000	148. 8	1. 5300	115. 7	. 6450	115. 3	1. 6038	100. 0	12. 600	98. 6
July .....	16. 1250	145. 4	1. 5300	115. 7	. 6300	112. 6	1. 6038	100. 0	12. 600	98. 6
Aug .....	14. 8750	134. 1	1. 5300	115. 7	. 6300	112. 6	1. 6038	100. 0	12. 600	98. 6
Sept .....	14. 0000	126. 2	1. 5300	115. 7	. 6300	112. 6	1. 6038	100. 0	12. 600	98. 6
Oct .....	12. 3750	111. 6	1. 5300	115. 7	. 6200	110. 9	1. 6038	100. 0	12. 600	98. 6
Nov .....	11. 0000	99. 2	1. 5300	115. 7	. 6300	112. 6	1. 6038	100. 0	12. 600	98. 6
Dec .....	10. 8750	98. 1	1. 5300	115. 7	. 6300	112. 6	1. 6038	100. 0	12. 600	98. 6
Average, 1903 .....	16. 2292	146. 4	1. 5300	115. 7	. 6342	113. 4	1. 6038	100. 0	12. 600	98. 6

Month.	Metals and implements.									
	Shovels: Ames No. 2.		Silver: bar, fine.		Spelter: Western.		Steel billets.		Steel rails.	
	Price per dozen.	Relative price.	Price per ounce.	Relative price.	Price per pound.	Relative price.	Price per ton.	Relative price.	Price per ton.	Relative price.
Average, 1890-1899..	\$7. 8658	100. 0	\$0. 74899	100. 0	\$0. 0452	100. 0	\$21. 5262	100. 0	\$26. 0654	100. 0
Jan .....	8. 0200	102. 0	. 48213	64. 4	. 0470	104. 0	29. 6000	137. 5	28. 0000	107. 4
Feb .....	8. 0200	102. 0	. 48479	64. 7	. 0500	110. 6	30. 0000	139. 4	28. 0000	107. 4
Mar .....	8. 0200	102. 0	. 49355	65. 9	. 0513	113. 5	30. 6200	142. 2	28. 0000	107. 4
Apr .....	8. 0200	102. 0	. 51255	68. 4	. 0570	126. 1	30. 2000	140. 3	28. 0000	107. 4
May .....	8. 0200	102. 0	. 54775	73. 1	. 0575	127. 2	30. 2500	140. 5	28. 0000	107. 4
June .....	8. 0200	102. 0	. 53519	71. 5	. 0575	127. 2	28. 8700	134. 1	28. 0000	107. 4
July .....	8. 0200	102. 0	. 54500	72. 8	. 0619	136. 9	27. 4000	127. 3	28. 0000	107. 4
Aug .....	8. 0200	102. 0	. 56076	74. 9	. 0588	130. 1	27. 0000	125. 4	28. 0000	107. 4
Sept .....	8. 0200	102. 0	. 58605	78. 2	. 0600	132. 7	27. 0000	125. 4	28. 0000	107. 4
Oct .....	8. 0200	102. 0	. 60963	81. 4	. 0600	132. 7	27. 0000	125. 4	28. 0000	107. 4
Nov .....	8. 0200	102. 0	. 58745	78. 4	. 0555	122. 8	24. 0000	111. 5	28. 0000	107. 4
Dec .....	8. 0200	102. 0	. 56014	74. 8	. 0525	116. 2	23. 0000	106. 8	28. 0000	107. 4
Average, 1903 .....	8. 0200	102. 0	. 54208	72. 4	. 0558	123. 5	27. 9117	129. 7	28. 0000	107. 4

Month.	Metals and implements.									
	Steel sheets: black, No. 27.		Tin: pig.		Tin plates: domestic, Bessemer, coke, 14 x 20 in.		Trowels: M. C. O., brick, 10½-inch.		Vises: solid box, 50-pound.	
	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per 100 pounds.	Relative price.	Price each.	Relative price.	Price each.	Relative price.
Average, 1890-1899..	<sup>a</sup> \$0. 0224	100. 0	\$0. 1836	100. 0	<sup>b</sup> \$3. 4148	100. 0	\$0. 3400	100. 0	\$3. 9009	100. 0
Jan .....	. 0265	118. 3	. 2800	152. 5	3. 7900	111. 0	. 3400	100. 0	4. 6000	117. 9
Feb .....	. 0265	118. 3	. 2870	156. 3	3. 7900	111. 0	. 3400	100. 0	4. 6000	117. 9
Mar .....	. 0265	118. 3	. 3081	167. 8	3. 9900	116. 8	. 3400	100. 0	4. 6000	117. 9
Apr .....	. 0265	118. 3	. 3025	164. 8	3. 9900	116. 8	. 3400	100. 0	5. 7500	147. 4
May .....	. 0265	118. 3	. 3000	163. 4	3. 9900	116. 8	. 3400	100. 0	5. 7500	147. 4
June .....	. 0270	120. 5	. 2863	155. 9	3. 9900	116. 8	. 3400	100. 0	5. 1800	132. 8
July .....	. 0270	120. 5	. 2819	153. 5	3. 9900	116. 8	. 3400	100. 0	5. 1800	132. 8
Aug .....	. 0260	116. 1	. 2840	154. 7	3. 9900	116. 8	. 3400	100. 0	5. 7500	147. 4
Sept .....	. 0258	115. 2	. 2713	147. 8	3. 9900	116. 8	. 3400	100. 0	5. 7500	147. 4
Oct .....	. 0258	115. 2	. 2618	142. 6	3. 9900	116. 8	. 3400	100. 0	5. 1800	132. 8
Nov .....	. 0250	111. 6	. 2575	140. 3	3. 9900	116. 8	. 3400	100. 0	5. 1800	132. 8
Dec .....	. 0233	104. 0	. 2590	141. 1	3. 7900	111. 0	. 3400	100. 0	4. 6000	117. 9
Average, 1903 .....	. 0260	116. 1	. 2816	153. 4	3. 9400	115. 4	. 3400	100. 0	5. 1767	132. 7

<sup>a</sup> Average for the period July, 1894, to December, 1899.  
<sup>b</sup> Average for 1896-1899.



**TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.**

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Metals and implements.				Lumber and building materials.					
	Wood screws: 1-inch, No. 10, flat head.		Zinc: sheet.		Brick: common domestic.		Carbonate of lead: American, in oil.		Cement: Portland, domestic.	
	Price per gross.	Relative price.	Price per 100 pounds.	Relative price.	Price per M.	Relative price.	Price per pound.	Relative price.	Price per barrel.	Relative price.
Average, 1890-1899..	\$0.1510	100.0	\$5.3112	100.0	\$5.5625	100.0	\$0.0577	100.0	<sup>a</sup> \$1.9963	100.0
Jan .....	.0920	60.9	5.7500	108.3	5.7500	103.4	.0539	93.4	2.1250	106.4
Feb .....	.0920	60.9	5.7500	108.3	5.7500	103.4	.0564	97.7	2.0750	103.9
Mar .....	.1106	73.2	5.7500	108.3	5.1250	92.1	.0564	97.7	2.1250	106.4
Apr .....	.1106	73.2	6.2100	116.9	5.1250	92.1	.0637	110.4	2.1500	107.7
May .....	.1106	73.2	6.2100	116.9	5.2500	94.4	.0662	114.7	2.1250	106.4
June .....	.1106	73.2	6.2100	116.9	5.0000	89.9	.0662	114.7	2.2000	110.2
July .....	.1106	73.2	6.2100	116.9	5.1250	92.1	.0662	114.7	2.1500	107.7
Aug .....	.1150	76.2	6.2100	116.9	5.5000	98.9	.0637	110.4	2.0000	100.2
Sept .....	.1150	76.2	6.2100	116.9	6.7500	121.3	.0637	110.4	2.0000	100.2
Oct .....	.1150	76.2	6.2100	116.9	7.0000	125.8	.0613	106.2	1.7500	87.7
Nov .....	.1150	76.2	6.2100	116.9	7.2500	130.3	.0613	106.2	1.8750	93.9
Dec .....	.1150	76.2	5.2900	99.6	7.2500	130.3	.0588	101.9	1.7750	88.9
Average, 1903 .....	.1093	72.4	6.0183	113.3	5.9063	106.2	.0615	106.6	2.0292	101.6

Month.	Lumber and building materials.									
	Cement: Rosendale.		Doors: pine.		Hemlock.		Lime: common.		Linseed oil: raw.	
	Price per barrel.	Relative price.	Price per door.	Relative price.	Price per M feet.	Relative price.	Price per barrel.	Relative price.	Price per gallon.	Relative price.
Average, 1890-1899..	\$0.8871	100.0	\$1.0929	100.0	\$11.9625	100.0	\$0.8332	100.0	\$0.4535	100.0
Jan .....	.9250	104.3	1.8500	169.3	16.5000	137.9	.8100	97.2	.4600	101.4
Feb .....	1.0000	112.7	1.8500	169.3	16.5000	137.9	.8100	97.2	.4600	101.4
Mar .....	.9750	109.9	1.8500	169.3	16.5000	137.9	.7600	91.2	.4600	101.4
Apr .....	.8500	95.8	1.8500	169.3	16.5000	137.9	.7600	91.2	.4600	101.4
May .....	.9000	101.5	1.8500	169.3	16.5000	137.9	.7600	91.2	.4400	97.0
June .....	.9000	101.5	1.8000	164.7	17.0000	142.1	.7600	91.2	.4400	97.0
July .....	.8750	98.6	1.8000	164.7	17.0000	142.1	.7600	91.2	.4000	88.2
Aug .....	.8500	95.8	1.7000	155.5	17.0000	142.1	.7600	91.2	.3800	83.8
Sept .....	.8500	95.8	1.7000	155.5	17.0000	142.1	.8200	98.4	.3700	81.6
Oct .....	.8500	95.8	1.5500	141.8	17.0000	142.1	.8200	98.4	.3900	86.0
Nov .....	.8500	95.8	1.5500	141.8	17.0000	142.1	.8200	98.4	.3700	81.6
Dec .....	.8500	95.8	1.4000	128.1	17.0000	142.1	.8100	97.2	.3700	81.6
Average, 1903 .....	.8896	100.3	1.7292	158.2	16.7917	140.4	.7875	94.5	.4167	91.9

Month.	Lumber and building materials.									
	Maple: hard.		Oak: white, plain.		Oak: white, quartered.		Oxide of zinc.		Pine: white, boards, No. 2 barn.	
	Price per M feet.	Relative price.	Price per M feet.	Relative price.	Price per M feet.	Relative price.	Price per pound.	Relative price.	Price per M feet.	Relative price.
Average, 1890-1899..	\$26.5042	100.0	\$37.4292	100.0	\$53.6771	100.0	\$0.0400	100.0	\$17.1104	100.0
Jan .....	28.0000	105.6	42.5000	113.5	70.0000	130.4	.0463	115.8	24.0000	140.3
Feb .....	28.0000	105.6	42.5000	113.5	70.0000	130.4	.0463	115.8	24.0000	140.3
Mar .....	31.0000	117.0	42.5000	113.5	70.0000	130.4	.0463	115.8	24.0000	140.3
Apr .....	31.0000	117.0	42.5000	113.5	70.0000	130.4	.0463	115.8	24.0000	140.3
May .....	31.0000	117.0	42.5000	113.5	70.0000	130.4	.0463	115.8	24.0000	140.3
June .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
July .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
Aug .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
Sept .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
Oct .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
Nov .....	33.0000	124.5	46.5000	124.2	77.5000	144.4	.0463	115.8	24.0000	140.3
Dec .....	33.0000	124.5	46.5000	124.2	82.5000	153.7	.0463	115.8	24.0000	140.3
Average, 1903 .....	31.6667	119.5	44.8333	119.8	74.7917	139.3	.0463	115.8	24.0000	140.3

<sup>a</sup> Average for 1895-1899.



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month	Lumber and building materials.									
	Pine: white, boards, uppers.		Pine: yellow.		Plate glass: polished, area 3 to 5 sq. ft.		Plate glass: polished, area 5 to 10 sq. ft.		Poplar.	
	Price per M feet.	Relative price.	Price per M feet.	Relative price.	Price per square foot.	Relative price.	Price per square foot.	Relative price.	Price per M feet.	Relative price.
Average, 1890-1899..	\$46.5542	100.0	\$18.4646	100.0	\$0.3630	100.0	\$0.5190	100.0	\$31.3667	100.0
Jan .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	45.0000	143.5
Feb .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	46.0000	146.7
Mar .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	47.5000	151.4
Apr .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	47.5000	151.4
May .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	47.5000	151.4
June .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	51.7500	165.0
July .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	51.7500	165.0
Aug .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	51.7500	165.0
Sept .....	80.0000	171.8	21.0000	113.7	.2700	74.4	.4450	85.7	51.7500	165.0
Oct .....	80.0000	171.8	21.0000	113.7	.2400	66.1	.3900	75.1	51.7500	165.0
Nov .....	80.0000	171.8	21.0000	113.7	.2400	66.1	.3900	75.1	51.7500	165.0
Dec .....	80.0000	171.8	21.0000	113.7	.2400	66.1	.3900	75.1	51.7500	165.0
Average, 1903 .....	80.0000	171.8	21.0000	113.7	.2625	72.3	.4313	83.1	49.6458	158.3

Month.	Lumber and building materials.									
	Putty.		Resin: good, strained.		Shingles: cypress.		Shingles: Michigan white pine, 16-in., XXXX.		Spruce.	
	Price per pound.	Relative price.	Price per barrel.	Relative price.	Price per M.	Relative price.	Price per M.	Relative price.	Price per M feet.	Relative price.
Average, 1890-1899..	\$0.0158	100.0	\$1.4399	100.0	\$2.8213	100.0	\$3.7434	100.0	\$14.3489	100.0
Jan .....	.0225	142.4	1.9250	133.7	2.5000	88.6	3.6500	125.1	18.2500	127.2
Feb .....	.0225	142.4	2.1000	145.8	2.5000	88.6	3.6500	125.1	18.2500	127.2
Mar .....	.0225	142.4	2.2750	158.0	2.5000	88.6	3.6500	125.1	18.2500	127.2
Apr .....	.0113	71.5	2.3000	159.7	2.5000	88.6	3.6500	125.1	18.2500	127.2
May .....	.0113	71.5	2.1250	147.6	2.6000	92.2	3.6500	125.1	18.2500	127.2
June .....	.0113	71.5	2.0750	144.1	2.6000	92.2	3.6500	125.1	19.0000	132.4
July .....	.0113	71.5	2.0625	143.2	2.6000	92.2	3.6500	125.1	19.0000	132.4
Aug .....	.0113	71.5	1.9750	137.2	2.6000	92.2	3.6500	125.1	19.0000	132.4
Sept .....	.0113	71.5	2.1000	145.8	2.6000	92.2	3.6500	125.1	20.5000	142.9
Oct .....	.0113	71.5	2.3000	159.7	2.6000	92.2	3.6500	125.1	20.5000	142.9
Nov .....	.0113	71.5	2.7750	192.7	2.6000	92.2	3.6500	125.1	20.5000	142.9
Dec .....	.0113	71.5	2.5750	178.8	2.6000	92.2	3.6500	125.1	20.5000	142.9
Average, 1903 .....	.0141	89.2	2.2156	153.9	2.5667	91.0	3.6500	125.1	19.1875	133.7

Month.	Lumber and building materials.								Drugs and chemicals.	
	Tar.		Turpentine: spirits of.		Window glass: American, single, firsts, 6 x 8 to 10 x 15 inch.		Window glass: American, single, thirds, 6 x 8 to 10 x 15 inch.		Alcohol: grain, 94 per cent.	
	Price per barrel.	Relative price.	Price per gallon.	Relative price.	Price per 50 sq. ft.	Relative price.	Price per 50 sq. ft.	Relative price.	Price per gallon.	Relative price.
Average, 1890-1899..	\$1.2048	100.0	\$0.3343	100.0	\$2.1514	100.0	\$1.8190	100.0	\$2.2405	100.0
Jan .....	1.6000	132.8	.5550	166.0	2.5740	119.6	2.1060	115.8	2.4300	108.5
Feb .....	1.6000	132.8	.6550	195.9	2.5740	119.6	2.1060	115.8	2.4100	107.6
Mar .....	1.6500	137.0	.6575	196.7	2.5740	119.6	2.1060	115.8	2.4100	107.6
Apr .....	1.6500	137.0	.6725	201.2	2.5740	119.6	2.1060	115.8	2.3900	106.7
May .....	1.6500	137.0	.4800	143.6	2.5740	119.6	2.1060	115.8	2.3800	106.2
June .....	1.6500	137.0	.4900	146.6	2.5740	119.6	2.1060	115.8	2.3800	106.2
July .....	1.6500	137.0	.4950	148.1	2.5740	119.6	2.1060	115.8	2.3700	105.8
Aug .....	1.6500	137.0	.5250	157.0	2.5740	119.6	2.1080	115.8	2.3700	105.8
Sept .....	1.6500	137.0	.5500	164.5	2.5740	119.6	2.1060	115.8	2.3700	105.8
Oct .....	1.8000	149.4	.5850	175.0	2.5740	119.6	2.1060	115.8	2.3700	105.8
Nov .....	1.8000	149.4	.6000	179.5	2.9700	138.0	2.4300	133.6	2.4300	108.5
Dec .....	1.8000	149.4	.5925	177.2	2.9700	138.0	2.4300	133.6	2.4400	108.9
Average, 1903 .....	1.6792	139.4	.5715	171.0	2.6400	122.7	2.1600	118.7	2.3958	106.9

<sup>a</sup>Shingles: White pine, 18-inch, XXXX.  
<sup>b</sup>For method of computing relative price, see pages 241 and 242. Average price for 1901, \$3.2625; for 1902, \$3.5875.



TABLE III.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Drugs and chemicals.									
	Alcohol: wood, refined, 95 per cent.		Alum: lump.		Brimstone: crude, seconds.		Glycerin: re- fined.		Muriatic acid: 20°.	
	Price per gallon.	Rela- tive price.	Price per pound.	Rela- tive price.	Price per ton.	Re-la- tive price.	Price per pound.	Rela- tive price.	Price per pound.	Rela- tive price.
Average, 1890-1899..	\$0.9539	100.0	\$0.0167	100.0	\$20.6958	100.0	\$0.1399	100.0	\$0.0104	100.0
Jan .....	.6500	68.1	.0175	104.8	23.0000	111.1	.1450	103.6	.0160	153.8
Feb .....	.6500	68.1	.0175	104.8	22.5000	108.7	.1450	103.6	.0160	153.8
Mar .....	.6500	68.1	.0175	104.8	22.7500	109.9	.1450	103.6	.0160	153.8
Apr .....	.6500	68.1	.0165	98.8	22.0000	106.3	.1450	103.6	.0160	153.8
May .....	.6500	68.1	.0165	98.8	22.2500	107.5	.1450	103.6	.0160	153.8
June .....	.6500	68.1	.0175	104.8	22.2500	107.5	.1450	103.6	.0160	153.8
July .....	.6500	68.1	.0175	104.8	22.2500	107.5	.1450	103.6	.0160	153.8
Aug .....	.5500	57.7	.0175	104.8	22.2500	107.5	.1450	103.6	.0160	153.8
Sept .....	.5000	52.4	.0175	104.8	22.2500	107.5	.1450	103.6	.0160	153.8
Oct .....	.5000	52.4	.0175	104.8	22.2500	107.5	.1450	103.6	.0160	153.8
Nov .....	.5000	52.4	.0175	104.8	22.2500	107.5	.1425	101.9	.0160	153.8
Dec .....	.5000	52.4	.0175	104.8	22.0000	106.3	.1425	101.9	.0160	153.8
Average, 1903 .....	.5917	62.0	.0173	103.6	22.3333	107.9	.1446	103.4	.0160	153.8

Month.	Drugs and chemicals.						House furnishing goods.			
	Opium: natural, in cases.		Quinine: American.		Sulphuric acid: 66°.		Earthenware: plates, cream colored.		Earthenware: plates, white granite.	
	Price per pound.	Rela- tive price.	Price per ounce.	Rela- tive price.	Price per pound.	Rela- tive price.	Price per dozen.	Rela- tive price.	Price per dozen.	Rela- tive price.
Average, 1890-1899..	\$2.3602	100.0	\$0.2460	100.0	\$0.0089	100.0	\$0.4136	100.0	\$0.4479	100.0
Jan .....	2.7250	115.5	.2600	105.7	.0120	134.8	.4775	115.4	.4988	111.4
Feb .....	2.7250	115.5	.2600	105.7	.0120	134.8	.4775	115.4	.4988	111.4
Mar .....	3.0000	127.1	.2800	113.8	.0120	134.8	.4775	115.4	.4988	111.4
Apr .....	2.9500	125.0	.2600	105.7	.0120	134.8	.4775	115.4	.4988	111.4
May .....	2.9500	125.0	.2600	105.7	.0130	146.1	.4775	115.4	.4988	111.4
June .....	3.2000	135.6	.2400	97.6	.0130	146.1	.4775	115.4	.4988	111.4
July .....	3.1750	134.5	.2300	93.5	.0130	146.1	.4775	115.4	.4988	111.4
Aug .....	3.5000	148.3	.2400	97.6	.0130	146.1	.4775	115.4	.4988	111.4
Sept .....	3.3000	139.8	.2500	101.6	.0130	146.1	.4775	115.4	.4988	111.4
Oct .....	3.2500	137.7	.2500	101.6	.0130	146.1	.4775	115.4	.4988	111.4
Nov .....	3.2000	135.6	.2500	101.6	.0130	146.1	.4775	115.4	.4988	111.4
Dec .....	3.0000	127.1	.2500	101.6	.0130	146.1	.4775	115.4	.4988	111.4
Average, 1903 .....	3.0813	130.6	.2525	102.6	.0127	142.7	.4775	115.4	.4988	111.4

Month.	House furnishing goods.									
	Earthenware: teacups and saucers, white granite.		Furniture: bedroom sets, ash.		Furniture: chairs, bed- room, maple.		Furniture: chairs, kitchen.		Furniture: tables, kitchen.	
	Price per gross (6 dozen cups and 6 dozen saucers).	Rela- tive price.	Price per set.	Rela- tive price.	Price per dozen.	Rela- tive price.	Price per dozen.	Rela- tive price.	Price per dozen.	Rela- tive price.
Average, 1890-1899..	\$3.4292	100.0	\$10.555	100.0	\$6.195	100.0	\$3.8255	100.0	\$14.435	100.0
Jan .....	3.6832	107.4	11.750	111.3	7.500	121.1	5.0000	130.7	15.600	108.1
Feb .....	3.6832	107.4	11.750	111.3	7.500	121.1	5.0000	130.7	15.600	108.1
Mar .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Apr .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
May .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
June .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
July .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Aug .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Sept .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Oct .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Nov .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Dec .....	3.6832	107.4	12.250	116.1	8.000	129.1	5.0000	130.7	15.600	108.1
Average, 1903 .....	3.6832	107.4	12.167	115.3	7.917	127.8	5.0000	130.7	15.600	108.1



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Cont'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	House furnishing goods.									
	Glassware: nappies, 4-inch.		Glassware: pitchers, ½-gallon, common.		Glassware: tumblers, ½-pint, common.		Table cutlery: carvers, stag handles.		Table cutlery: knives and forks, cocobolo handles.	
	Price per dozen.	Relative price.	Price per dozen.	Relative price.	Price per dozen.	Relative price.	Price per pair.	Relative price.	Price per gross.	Relative price.
Average, 1890-1899..	\$0.112	100.0	\$1.175	100.0	\$0.1775	100.0	\$0.80	100.0	\$6.06	100.0
Jan .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
Feb .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
Mar .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
Apr .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
May .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
June .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
July .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
Aug .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8	6.50	107.3
Sept .....	.140	125.0	1.300	110.6	.1700	95.8	.75	93.8	6.50	107.3
Oct .....	.140	125.0	1.300	110.6	.1700	95.8	.75	93.8	6.50	107.3
Nov .....	.140	125.0	1.300	110.6	.1700	95.8	.75	93.8	6.50	107.3
Dec .....	.140	125.0	1.300	110.6	.1700	95.8	.75	93.8	6.50	107.3
Average, 1903 .....	.140	125.0	1.300	110.6	.1767	99.5	.75	93.8	6.50	107.3

Month.	House furnishing goods.				Miscellaneous.					
	Wooden ware: pails, oak-grained.		Wooden ware: tubs, oak-grained.		Cotton-seed meal.		Cotton-seed oil: summer yellow, prime.		Jute: raw.	
	Price per dozen.	Relative price.	Price per nest of 3.	Relative price.	Price per ton of 2,000 pounds.	Relative price.	Price per gallon.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$1.2988	100.0	\$1.3471	100.0	\$21.9625	100.0	\$0.3044	100.0	\$0.0359	100.0
Jan .....	1.5500	119.3	1.4500	107.6	27.5000	125.2	.3900	128.1	.0400	111.4
Feb .....	1.5500	119.3	1.4500	107.6	27.5000	125.2	.3975	130.6	.0488	135.9
Mar .....	1.5500	119.3	1.4500	107.6	27.2500	124.1	.4100	134.7	.0488	135.9
Apr .....	1.5500	119.3	1.4500	107.6	27.2500	124.1	.4050	133.0	.0488	135.9
May .....	1.5500	119.3	1.4500	107.6	26.5000	120.7	.4350	142.9	.0488	135.9
June .....	1.5500	119.3	1.4500	107.6	26.0000	118.4	.4250	139.6	.0488	135.9
July .....	1.5500	119.3	1.4500	107.6	26.0000	118.4	.4150	136.3	.0488	135.9
Aug .....	1.5500	119.3	1.4500	107.6	26.5000	120.7	.4200	138.0	.0488	135.9
Sept .....	1.5500	119.3	1.4500	107.6	27.0000	122.9	.4100	134.7	.0463	129.0
Oct .....	1.7000	130.9	1.4500	107.6	26.5000	120.7	.4000	131.4	.0463	129.0
Nov .....	1.7000	130.9	1.4500	107.6	26.2500	119.5	.3300	108.4	.0413	115.0
Dec .....	1.7000	130.9	1.4500	107.6	26.2500	119.5	.3350	110.1	.0413	115.0
Average, 1903 .....	1.5875	122.2	1.4500	107.6	26.7083	121.6	.3977	130.7	.0464	129.2

Month.	Miscellaneous.									
	Malt: Western made.		Paper: news.		Paper: wrapping, manila.		Proof spirits.		Rope: manila, 7⁄16-inch.	
	Price per bushel.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per gallon.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.7029	100.0	\$0.0299	100.0	\$0.0553	100.0	\$1.1499	100.0	α\$0.0934	100.0
Jan .....	.7350	104.6	.0263	88.0	.0488	88.2	1.3030	113.3	.1125	120.4
Feb .....	.7350	104.6	.0263	88.0	.0525	94.9	1.3000	113.1	.1075	115.1
Mar .....	.7350	104.6	.0263	88.0	.0525	94.9	1.3000	113.1	.1138	121.8
Apr .....	.7350	104.6	.0250	83.6	.0531	96.0	1.3000	113.1	.1125	120.4
May .....	.7350	104.6	.0250	83.6	.0531	96.0	1.3000	113.1	.1150	123.1
June .....	.7150	101.7	.0250	83.6	.0531	96.0	1.3000	113.1	.1175	125.8
July .....	.7150	101.7	.0250	83.6	.0531	96.0	1.3000	113.1	.1175	125.8
Aug .....	.7150	101.7	.0250	83.6	.0531	96.0	1.2750	110.9	.1150	123.1
Sept .....	.7350	104.6	.0250	83.6	.0531	96.0	1.2300	107.0	.1163	124.5
Oct .....	.7200	102.4	.0250	83.6	.0531	96.0	1.2450	108.3	.1175	125.8
Nov .....	.7150	101.7	.0250	83.6	.0531	96.0	1.2500	108.7	.1150	123.1
Dec .....	.7050	100.3	.0250	83.6	.0531	96.0	1.2675	110.2	.1150	123.1
Average, 1903 .....	.7246	103.1	.0253	84.6	.0526	95.1	1.2809	111.4	.1146	122.7

α 3⁄8-inch.



TABLE II.—BASE PRICES (AVERAGE FOR 1890-1899), AND MONTHLY ACTUAL AND RELATIVE PRICES OF COMMODITIES IN 1903—Conc'd.

[For a more detailed description of the articles see Table I. Average for 1903 computed from quotations in Table I; for explanation of method see pages 223 and 224.]

Month.	Miscellaneous.									
	Rubber: Para Island.		Soap: castile, mottled, pure.		Starch: laundry.		Tobacco: plug, Horseshoe.		Tobacco: smoking, granulated, Seal of North Carolina.	
	Price, per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.	Price per pound.	Relative price.
Average, 1890-1899..	\$0.8007	100.0	\$0.0569	100.0	\$0.0348	100.0	\$0.3962	100.0	\$0.5090	100.0
Jan .....	.8650	108.0	.0663	116.5	.0500	143.7	.4500	113.6	.5700	112.0
Feb .....	.8350	104.3	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Mar .....	.8950	111.8	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Apr .....	.8750	109.3	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
May .....	.8950	111.8	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
June .....	.8600	107.4	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
July .....	.8850	110.5	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Aug .....	.9050	113.0	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Sept .....	.9650	120.5	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Oct .....	1.0150	126.8	.0663	116.5	.0425	122.1	.4500	113.6	.5700	112.0
Nov .....	.9550	119.3	.0638	112.1	.0425	122.1	.4500	113.6	.5700	112.0
Dec .....	.9150	114.3	.0638	112.1	.0425	122.1	.4500	113.6	.5700	112.0
Average, 1903 .....	.9054	113.1	.0658	115.6	.0431	123.9	.4500	113.6	.5700	112.0

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Farm products.										
	Cotton: up-land, mid- dling.	Flax- seed: No. 1.	Grain.						Hay: timo- thy, No. 1.	Hides: green, salted, packers, heavy native steers.	Hops: New York State, choice.
			Barley: by sample.	Corn: No. 2, cash.	Oats: cash.	Rye: No. 2, cash.	Wheat: contract, cash.	Aver- age.			
Jan ....	115.0	105.6	123.5	122.2	123.8	92.4	98.7	112.1	119.8	139.9	203.3
Feb ....	123.5	106.0	119.4	114.6	127.6	94.0	100.4	111.2	118.6	132.7	203.3
Mar ...	130.5	102.4	116.6	114.0	123.8	94.9	97.0	109.3	123.7	126.3	192.0
Apr ....	135.4	97.9	115.8	114.3	125.4	95.0	101.0	110.3	134.2	120.6	163.7
May ...	147.2	98.4	120.0	118.0	131.4	94.4	104.0	113.6	133.6	124.4	132.7
June ..	160.3	100.2	118.0	129.3	142.5	96.4	104.2	118.1	133.7	126.6	132.7
July ...	160.4	90.3	114.0	133.8	148.3	95.4	105.7	119.4	127.0	124.7	129.9
Aug ...	164.3	85.3	118.3	136.2	129.3	97.6	110.7	118.4	122.2	121.3	118.6
Sept ...	158.1	86.7	130.1	131.2	134.4	106.1	113.0	123.0	103.5	127.4	142.6
Oct ....	126.4	87.4	127.3	116.8	133.2	103.5	109.0	118.0	106.7	121.0	145.4
Nov ....	142.5	84.0	127.2	112.6	129.1	101.2	106.2	115.3	101.9	115.8	175.0
Dec ....	164.6	84.7	123.9	110.1	130.7	97.7	110.6	114.6	106.9	115.9	175.0
1903 ....	144.7	94.1	121.2	121.1	131.7	97.5	105.1	115.3	119.2	124.8	159.5

Month.	Farm products.										
	Live stock.										Aver- age, farm prod- ucts.
	Cattle.			Hogs.			Sheep.			Aver- age.	
	Steers, choice to extra.	Steers, good to choice.	Aver- age.	Heavy.	Light.	Aver- age.	Native.	West- ern.	Aver- age.		
Jan....	112.7	110.4	111.6	151.6	144.9	148.3	101.6	107.5	104.6	121.5	123.3
Feb....	106.8	105.6	106.2	160.3	154.3	157.3	114.3	114.9	114.6	126.0	124.8
Mar ...	105.2	108.5	106.9	170.4	165.4	167.9	135.7	124.8	130.3	135.0	127.0
Apr....	104.7	111.7	108.2	166.6	162.6	164.6	123.9	126.8	125.4	132.7	125.0
May...	101.6	108.0	104.8	149.9	144.1	147.0	123.4	123.1	123.3	125.0	122.1
June ..	100.7	104.5	102.6	138.1	136.9	137.5	106.4	107.1	106.8	115.6	121.1
July ...	100.0	104.4	102.2	122.8	127.1	125.0	86.5	81.7	84.1	103.8	115.8
Aug ...	102.3	105.2	103.8	122.5	129.4	126.0	86.1	86.8	86.5	105.4	114.8
Sept ...	106.7	108.6	107.7	132.7	139.2	136.0	77.6	77.6	77.6	107.1	117.2
Oct ....	108.0	107.3	107.7	125.5	131.5	128.5	74.8	75.7	75.3	103.8	112.5
Nov ...	103.1	104.8	104.0	105.1	107.6	106.4	71.3	70.8	71.1	93.8	109.9
Dec....	104.5	104.3	104.4	103.1	101.7	102.4	81.4	80.3	80.9	95.9	112.2
1903....	104.7	106.9	105.8	137.3	137.0	137.2	98.7	98.0	98.4	113.8	118.8



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890–1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Food, etc.								
	Beans: medium, choice.	Bread.							Average.
		Crackers.			Loaf.				
		Boston X.	Soda.	Average.	Washing- ton market.	Home- made (N. Y. market).	Vienna (N. Y. market).	Average.	
Jan....	143.0	118.9	97.5	108.2	100.5	101.0	101.0	100.8	103.8
Feb....	140.7	118.9	97.5	108.2	100.5	101.0	101.0	100.8	103.8
Mar...	137.7	118.9	97.5	108.2	100.5	101.0	101.0	100.8	103.8
Apr....	134.0	118.9	83.6	101.3	100.5	101.0	101.0	100.8	101.0
May...	131.7	118.9	83.6	101.3	100.5	101.0	101.0	100.8	101.0
June..	137.7	118.9	83.6	101.3	100.5	101.0	101.0	100.8	101.0
July...	137.0	118.9	83.6	101.3	100.5	101.0	101.0	100.8	101.0
Aug...	134.7	104.0	90.5	97.3	100.5	101.0	101.0	100.8	99.4
Sept...	131.0	104.0	90.5	97.3	100.5	101.0	101.0	100.8	99.4
Oct....	136.2	104.0	90.5	97.3	100.5	101.0	101.0	100.8	99.4
Nov...	131.7	104.0	90.5	97.3	100.5	101.0	101.0	100.8	99.4
Dec....	130.2	104.0	90.5	97.3	100.5	101.0	101.0	100.8	99.4
1903....	135.5	112.6	90.0	101.3	100.5	101.0	101.0	100.8	101.0

Month.	Food, etc.											
	Butter.				Cheese: N. Y. State, full cream.	Coffee: Rio No. 7.	Eggs: new- laid, fancy, near- by.	Fish.				
	Cream- ery, Elgin (Elgin mar- ket).	Cream- ery, extra (N. Y. mar- ket).	Dairy, New York State.	Aver- age.				Cod, dry, bank, large.	Her- ring, shore, round.	Mack- erel, salt, large No. 3s.	Salmon, canned.	Aver- age.
Jan. ....	125.6	121.5	125.7	124.3	143.2	41.0	149.7	100.7	155.6	134.5	106.9	124.4
Feb. ....	118.7	118.2	119.5	118.8	145.7	41.0	109.8	100.7	155.6	141.5	108.6	126.6
Mar. ....	129.5	127.8	129.0	128.8	146.4	44.2	89.4	100.7	155.6	159.2	108.6	131.0
Apr. ....	119.3	117.1	122.3	119.6	148.2	41.4	82.2	100.7	155.6	134.5	108.6	124.9
May ....	95.6	98.7	103.8	99.4	118.1	40.0	89.8	100.7	155.6	134.5	108.6	124.9
June ..	97.2	96.3	102.5	98.7	107.7	40.0	94.8	103.0	155.6	134.5	108.6	125.4
July ....	90.5	89.3	94.5	91.4	101.9	41.0	99.6	103.0	155.6	101.7	105.2	116.4
Aug ....	87.8	86.6	88.6	87.7	101.3	40.0	115.9	103.0	155.6	102.6	106.9	117.0
Sept ....	95.1	92.5	94.6	94.1	112.0	40.0	129.9	109.7	155.6	116.8	106.9	122.3
Oct. ....	96.2	95.1	94.2	95.2	117.1	43.8	142.0	105.2	139.0	102.6	117.1	116.0
Nov ....	106.0	103.0	99.5	102.8	118.4	48.6	177.7	114.1	142.3	109.7	117.1	120.8
Dec. ....	112.9	108.8	100.3	107.3	121.6	49.5	193.6	118.6	139.0	109.7	117.1	121.1
1903....	106.1	104.7	106.2	105.7	123.3	42.6	123.2	105.0	151.7	123.5	110.0	122.6

Month.	Food, etc.								
	Flour.						Fruit.		
	Buck- wheat.	Rye.	Wheat.			Average.	Apples.		
			Spring patents.	Winter straights.	Average.		Evapo- rated, choice.	Sun-dried, Southern, sliced.	Average.
Jan....	118.4	99.5	92.2	87.8	90.0	99.5	72.4	92.2	82.3
Feb....	113.2	97.2	94.0	89.1	91.6	98.4	72.4	92.2	82.3
Mar...	102.9	92.7	93.7	88.9	91.3	94.6	70.8	97.1	84.0
Apr....	<sup>a</sup> 102.9	91.2	92.8	88.3	90.6	93.8	67.9	89.9	78.9
May...	<sup>a</sup> 102.9	89.7	96.6	89.4	93.0	94.7	67.9	82.5	75.2
June..	<sup>a</sup> 102.9	89.7	101.3	93.4	97.4	96.8	70.8	82.5	76.7
July...	<sup>a</sup> 102.9	91.9	103.4	94.3	98.9	98.1	70.8	82.5	76.7
Aug...	<sup>a</sup> 102.9	91.9	108.5	95.6	102.1	99.7	75.3	82.5	78.9
Sept...	141.5	95.7	108.9	96.0	102.5	110.5	73.8	77.7	75.8
Oct....	121.0	100.2	107.2	98.0	102.6	106.6	73.8	77.7	75.8
Nov...	122.2	100.2	104.9	98.8	101.9	106.5	76.7	77.7	77.2
Dec....	117.1	98.7	104.5	100.4	102.5	105.2	72.4	72.8	72.6
1903....	119.5	94.9	100.8	93.4	97.1	102.2	72.1	83.9	78.0

<sup>a</sup> Nominal price; see explanation on page 243.

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Food, etc.								
	Fruit.				Glucose: 41° and 42° mix- ing. (a)	Lard: prime contract.	Meal: corn.		
	Currants, in barrels.	Prunes, California, in boxes.	Raisins, California, London layer.	Average.			Fine white.	Fine yellow.	Average.
Jan....	120.0	67.8	110.0	92.5	123.4	158.1	135.9	137.7	136.8
Feb....	120.0	66.3	100.0	90.2	123.4	153.7	138.3	140.1	139.2
Mar...	114.9	63.0	103.3	89.8	130.4	157.5	135.9	135.2	135.6
Apr....	125.1	61.4	96.6	88.2	135.7	154.7	112.1	115.5	112.8
May...	118.4	59.8	90.0	83.7	126.9	141.4	108.2	107.2	107.7
June..	125.1	59.8	90.0	85.6	126.9	136.9	121.6	125.4	123.5
July...	135.7	59.8	90.0	87.8	137.5	120.9	128.7	127.8	128.3
Aug...	134.9	59.8	90.0	88.5	137.5	122.8	128.7	122.9	125.8
Sept...	131.7	59.8	90.0	86.6	137.5	134.4	124.0	130.3	127.2
Oct....	128.3	59.8	100.0	87.9	137.5	112.4	116.8	125.4	121.1
Nov...	130.1	59.8	100.0	88.9	119.9	110.9	124.0	122.9	123.5
Dec....	140.0	67.8	96.6	89.9	119.9	106.7	109.7	118.0	113.9
1903....	126.9	62.1	96.3	88.3	129.7	134.1	123.7	125.7	124.7

Month.	Food, etc.										
	Meat.										
	Beef.				Pork.					Mut- ton, dress- ed.	Aver- age.
	Fresh, native sides.	Salt, extra mess.	Salt, hams, West- ern.	Aver- age.	Bacon, short clear sides.	Bacon, short rib sides.	Hams, smoked.	Salt, mess, old to new.	Aver- age.		
Jan....	116.3	131.6	117.5	121.8	148.6	150.6	124.2	156.9	145.1	91.2	129.6
Feb....	103.8	127.9	114.7	115.5	154.7	155.8	128.7	155.3	148.6	99.5	130.1
Mar...	104.2	123.2	114.7	114.0	163.6	164.5	133.6	158.8	155.1	116.7	134.9
Apr....	106.2	119.3	114.7	113.4	163.0	163.9	134.6	158.5	155.0	121.1	135.2
May...	104.7	116.6	114.7	112.0	152.7	154.3	132.0	159.0	149.5	119.4	131.7
June..	100.9	111.5	111.4	107.9	150.2	152.3	129.1	157.7	147.3	113.4	128.3
July...	98.6	104.5	116.1	106.4	139.9	140.1	134.0	145.1	139.8	99.5	122.2
Aug...	97.3	102.9	121.6	107.3	132.0	130.0	136.9	133.8	133.2	88.7	117.9
Sept...	97.9	102.9	123.0	107.9	139.4	140.4	136.3	129.6	136.4	86.9	119.6
Oct....	98.2	105.4	123.0	108.9	133.6	134.1	126.3	115.5	127.4	82.1	114.8
Nov...	97.3	104.5	118.8	106.9	121.5	122.4	122.4	115.0	120.3	79.6	110.2
Dec....	96.6	106.0	117.5	106.7	108.4	108.7	113.3	114.1	111.1	84.2	106.1
1903....	101.7	113.1	117.2	110.7	142.1	143.0	129.2	143.1	139.4	98.7	123.5

Month.	Food, etc.										
	Milk: fresh.	Molas- ses: New Or- leans, open kettle, prime.	Rice: domes- tic, choice.	Salt.			Soda: bicarbo- nate of, Ameri- can.	Spices.			Starch: pure corn.
				Ameri- can.	Ash- ton's.	Aver- age.		Nut- megs.	Pepper, Singa- pore.	Aver- age.	
Jan....	137.3	114.2	102.5	88.0	103.3	95.7	59.8	53.8	169.4	111.6	82.1
Feb....	137.3	114.2	103.6	92.3	103.3	97.8	59.8	71.7	175.3	123.5	93.6
Mar...	129.8	114.2	103.6	88.0	103.3	95.7	59.8	70.6	176.1	123.4	93.6
Apr....	122.4	111.1	105.9	88.0	97.6	92.8	59.8	68.3	168.6	118.5	93.6
May...	103.9	111.1	104.8	80.9	102.1	91.5	59.8	65.9	168.6	117.3	93.6
June...	92.5	111.1	104.8	78.1	102.1	90.1	59.8	67.1	168.6	117.9	93.6
July...	88.2	111.1	103.6	79.8	102.1	91.0	59.8	67.1	175.3	121.2	93.6
Aug...	88.2	114.2	103.6	80.9	102.1	91.5	64.6	67.1	175.3	121.2	93.6
Sept...	101.2	114.2	103.6	87.3	102.1	94.7	64.6	65.4	173.6	119.5	93.6
Oct....	111.4	114.2	94.7	89.4	102.1	95.8	64.6	66.5	172.0	119.3	93.6
Nov...	117.6	114.2	92.5	89.4	102.1	95.8	64.6	68.3	170.2	119.3	93.6
Dec....	127.5	106.3	87.0	106.5	102.1	104.3	64.6	67.1	172.0	119.6	93.6
1903....	112.9	112.5	100.9	87.2	102.0	94.6	61.7	66.6	172.1	119.4	92.5

a Average for 1893-1899=100



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Food, etc.										
	Sugar.				Tallow.	Tea: For- mosa, fine.	Vegetables, fresh.			Vinegar: cider, Mon- arch.	Aver- age, food, etc.
	89° fair refin- ing.	96° cen- trif- ugal.	Granu- lated.	Aver- age.			Onions.	Pota- toes, Bur- bank.	Aver- age.		
Jan....	98.6	98.9	97.9	98.5	136.8	81.0	139.7	93.2	116.5	88.0	112.3
Feb....	94.3	95.7	96.8	95.6	137.9	81.0	117.7	92.4	105.1	88.0	111.4
Mar ...	96.1	96.1	98.4	96.9	128.7	81.0	132.4	89.9	111.2	88.0	112.3
Apr....	92.3	93.2	98.5	94.7	125.1	81.0	176.5	85.4	131.0	88.0	110.0
May ...	93.4	95.0	100.0	96.1	120.0	81.0	73.5	103.4	88.5	88.0	104.8
June ..	92.0	92.6	99.8	94.8	114.9	79.3	80.9	141.8	111.4	88.0	105.6
July ...	91.3	93.9	101.0	95.4	107.1	77.5	75.3	<i>a 141.8</i>	108.6	88.0	103.8
Aug ...	96.1	97.7	102.1	98.6	104.8	77.5	51.5	<i>a 141.8</i>	96.7	88.0	103.1
Sept ...	99.3	100.4	101.5	100.4	112.2	75.7	117.7	<i>a 141.8</i>	129.8	88.0	107.1
Oct....	99.3	100.2	97.0	98.8	106.4	72.2	88.2	116.5	102.4	88.0	104.4
Nov ...	96.5	97.7	94.2	96.1	103.4	91.6	103.0	122.2	112.6	88.0	105.6
Dec....	91.2	92.9	92.0	92.0	111.5	91.6	103.0	126.2	114.6	88.0	105.5
1903....	95.0	96.1	98.2	96.4	117.2	80.9	104.9	105.2	105.1	88.0	107.1

Month.	Cloths and clothing.										
	Bags: 2-bu., Amos- keag.	Blankets.				Boots and shoes.					
		11-4, all wool.	11-4, cotton warp, all wool filling.	11-4, cotton warp, cotton and wool filling.	Aver- age.	Men's bro- gans, split.	Men's calf bal. shoes, Good- year welt.	Men's split boots.	Men's vici kid shoes, Good- year welt.	Wom- en's solid- grain shoes.	Aver- age.
Jan....	100.1	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
Feb....	100.1	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
Mar ...	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
Apr....	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
May ...	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
June ..	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	107.0	99.9
July ...	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
Aug ...	103.6	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
Sept ...	107.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
Oct ....	107.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
Nov ...	107.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
Dec....	107.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	110.1	100.5
1903....	104.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	108.6	100.2

Month.	Cloths and clothing.								
	Broad- cloths: first qual- ity, black, 54-inch, XXX wool.	Calico: Cocheco prints.	Carpets.				Cotton flannels.		
			Brussels, 5-frame, Bigelow.	Ingrain, 2-ply Lowell.	Wilton, 5-frame, Bigelow.	Average.	2½ yards to the pound.	3½ yards to the pound.	Average.
Jan....	110.3	90.4	105.5	106.1	105.5	105.7	95.6	102.3	99.0
Feb....	110.3	90.4	105.5	106.1	105.5	105.7	95.6	102.3	99.0
Mar...	110.3	90.4	105.5	106.1	105.5	105.7	95.6	102.3	99.0
Apr....	110.3	90.4	105.5	106.1	105.5	105.7	95.6	102.3	99.0
May...	110.3	90.4	110.3	109.1	110.7	110.0	99.2	106.6	102.9
June...	110.3	90.4	110.3	109.1	110.7	110.0	99.2	106.6	102.9
July...	110.3	90.4	110.3	109.1	110.7	110.0	102.7	111.0	106.9
Aug...	110.3	90.4	110.3	109.1	110.7	110.0	106.2	113.0	109.6
Sept...	110.3	90.4	110.3	109.1	110.7	110.0	109.8	115.3	112.6
Oct....	110.3	90.4	110.3	109.1	110.7	110.0	113.3	115.3	114.3
Nov...	110.3	90.4	110.3	109.1	110.7	110.0	116.9	117.4	117.2
Dec....	110.3	99.5	110.3	109.1	110.7	110.0	120.4	119.7	120.1
1903....	110.3	91.1	108.7	108.1	108.9	108.6	104.1	109.4	106.8

<sup>a</sup> Nominal price; see explanation on page 243.

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Cloths and clothing.								
	Cotton thread: 6-cord, 200-yard spools, J. & P. Coats.	Cotton yarns.			Denims: Amos-keag.	Drillings.			Flannels: white, 4-4, Ballard Vale No. 3.
		Carded, white, mule-spun, Northern, cones, 10/1.	Carded, white, mule-spun, Northern, cones, 22/1.	Average.		Brown, Pepper-ell.	30-inch, Stark A.	Average.	
Jan....	120.1	101.1	97.8	99.5	100.6	100.5	107.5	104.0	108.8
Feb....	120.1	102.6	99.0	100.8	100.6	100.5	107.3	103.9	108.8
Mar....	120.1	107.3	104.1	105.7	103.0	100.5	104.2	102.4	111.9
Apr....	120.1	105.7	104.1	104.9	105.4	100.5	105.8	103.2	111.9
May....	120.1	113.5	107.9	110.7	105.4	104.9	104.4	104.7	111.9
June...	120.1	121.3	113.0	117.2	110.2	109.3	112.1	110.7	111.9
July....	120.1	125.9	119.3	122.6	110.2	113.6	109.8	111.7	117.6
Aug....	120.1	130.6	119.3	125.0	110.2	113.6	116.7	115.2	117.6
Sept....	120.1	124.4	113.0	118.7	110.2	113.6	119.6	116.6	117.6
Oct....	120.1	116.6	109.2	112.9	110.2	113.6	115.0	114.3	117.6
Nov....	120.1	118.2	110.5	114.4	114.9	113.6	114.8	114.2	117.6
Dec....	120.1	127.5	116.8	122.2	114.9	113.6	120.0	116.8	117.6
1903....	120.1	116.2	109.5	112.9	108.0	108.2	111.5	109.9	114.3

Month.	Cloths and clothing.								
	Ginghams.			Horse blankets: 6 pounds each, all wool.	Hosiery.				
	Amos-keag.	Lancaster.	Average.		Men's cotton half hose, seamless, fast black, 20 to 22 oz.	Men's cotton half hose, seamless, 84 needles.	Women's combed Egyptian cotton hose, high spliced heel. (a)	Women's cotton hose, seamless, fast black, 26 to 28 oz.	Average.
Jan....	103.2	100.3	101.8	117.8	b 76.9	86.0	101.4	b 78.9	85.8
Feb....	103.2	100.3	101.8	117.8	b 76.9	86.0	101.4	b 78.9	85.8
Mar....	103.2	100.3	101.8	117.8	b 76.9	86.0	101.4	b 78.9	85.8
Apr....	103.2	100.3	101.8	117.8	76.9	89.2	101.4	81.6	87.3
May....	103.2	100.3	101.8	117.8	c 76.9	89.2	101.4	c 81.6	87.3
June...	103.2	100.3	101.8	117.8	c 76.9	89.2	101.4	c 81.6	87.3
July....	103.2	100.3	101.8	117.8	c 76.9	92.4	101.4	c 81.6	88.1
Aug....	103.2	100.3	101.8	117.8	c 76.9	92.4	101.4	c 81.6	88.1
Sept....	103.2	100.3	101.8	117.8	82.1	92.4	101.4	86.8	90.7
Oct....	103.2	100.3	101.8	117.8	d 82.1	92.4	101.4	d 86.8	90.7
Nov....	103.2	100.3	101.8	117.8	d 82.1	92.4	101.4	d 86.8	90.7
Dec....	103.2	100.3	101.8	117.8	d 82.1	92.4	101.4	d 86.8	90.7
1903....	103.2	100.3	101.8	117.8	e 82.1	90.0	101.4	e 86.8	90.1

Month.	Cloths and clothing.							
	Leather.					Linen thread.		
	Harness, oak.	Sole, hem- lock, non- acid, Buenos Ayres.	Sole, oak.	Wax calf,30 to 40 lbs. to the dozen, B grade.	Aver- age.	Shoe, 10s, Bar- bour.	3-cord, 200 yard spools, Barbour.	Aver- age.
Jan....	117.3	118.6	113.0	100.8	112.4	96.7	98.2	97.5
Feb....	117.3	118.6	101.1	100.8	109.5	96.7	98.2	97.5
Mar ...	117.3	118.6	117.5	100.8	113.6	96.7	98.2	97.5
Apr....	117.3	113.5	116.0	107.0	113.5	96.7	98.2	97.5
May ...	110.4	113.5	114.5	107.0	111.4	96.7	98.2	97.5
June...	110.4	113.5	114.5	107.0	111.4	96.7	98.2	97.5
July ...	110.4	113.5	113.0	107.0	111.0	96.7	98.2	97.5
Aug ...	120.7	118.6	110.0	107.0	114.1	96.7	98.2	97.5
Sept...	119.0	118.6	110.0	107.0	113.7	96.7	98.2	97.5
Oct ....	110.4	118.6	110.0	107.0	111.5	96.7	98.2	97.5
Nov ...	110.4	118.6	108.5	107.0	111.1	96.7	98.2	97.5
Dec....	110.4	118.6	107.0	107.0	110.8	96.7	98.2	97.5
1903....	114.3	116.9	111.3	105.4	112.0	96.7	98.2	97.5

<sup>a</sup> Average for 1893-1899=100.

<sup>b</sup> Computed from September, 1902, price.

<sup>c</sup> Computed from April, 1903, price.

<sup>d</sup> Computed from September, 1903, price.

<sup>e</sup> Computed from September, 1903, price, which represents bulk of sales during the year.



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—

[Average price for 1890-1899=100. For a more detailed description of the articles see  
tive price for 1903 computed from average price for the year as shown in Ta

Month.	Cloths and clothing.							
	Overcoatings.						Print cloths: 28-inch, 64 x 64.	Shawls: standard, all wool, 72 x 144 inch, 42-ounce.
	Beaver, Moscow, all wool, black.	Chinchilla, B-rough, all wool.	Chinchilla, cotton warp, C. C. grade.	Covert cloth, light weight, staple.	Kersey, standard, 27 to 28 ounce. (α)	Aver- age.		
Jan....	117.3	103.1	90.1	94.0	126.3	106.2	108.1	107.0
Feb....	117.3	103.1	93.2	94.0	126.3	106.8	114.5	107.0
Mar...	117.3	103.1	93.2	94.0	126.3	106.8	114.5	107.0
Apr....	117.3	103.1	93.2	94.0	126.3	106.8	110.7	107.0
May...	117.3	103.1	93.2	94.0	126.3	106.8	108.8	107.0
June...	117.3	103.1	93.2	94.0	126.3	106.8	114.0	107.0
July...	117.3	103.1	93.2	94.0	126.3	106.8	113.4	107.0
Aug...	117.3	103.1	93.2	94.0	126.3	106.8	113.6	107.0
Sept...	117.3	103.1	93.2	94.0	126.3	106.8	117.8	107.0
Oct....	117.3	103.1	95.2	94.0	126.3	107.2	112.8	107.0
Nov...	117.3	103.1	93.2	94.0	126.3	106.8	114.0	107.0
Dec....	117.3	103.1	90.1	94.0	126.3	106.2	120.0	107.0
1903....	117.3	103.1	92.8	94.0	126.3	106.7	113.3	107.0

Month.	Cloths and clothing.									
	Sheetings.									
	Bleached.				Brown.					Aver- age.
	10-4, Atlan- tic.	10-4, Pep- perell.	10-4, Wam- sutta S. T.	Aver- age.	4-4, Atlantic A.	4-4, Indian Head.	4-4, Mass. Mills, Flying Horse brand.	4-4, Pep- perell R.	Aver- age.	
Jan....	108.7	116.8	99.2	108.2	106.3	99.8	94.1	102.2	100.6	103.9
Feb....	106.9	116.8	99.2	107.6	108.1	103.8	96.2	104.4	103.1	105.1
Mar...	107.9	116.8	99.2	108.0	110.5	103.8	98.2	104.4	104.2	105.8
Apr....	107.5	116.8	99.2	107.8	111.0	103.8	98.2	104.4	104.4	105.8
May...	115.0	116.8	99.2	110.3	112.1	103.8	100.3	104.4	105.2	107.4
June..	123.0	122.1	99.2	114.8	115.7	107.8	102.2	108.9	108.7	111.3
July...	123.7	122.1	106.8	117.5	116.1	111.8	102.2	108.9	109.8	113.1
Aug...	122.4	122.1	106.8	117.1	118.6	111.8	102.2	113.4	111.5	113.9
Sept...	<sup>b</sup> 122.4	122.1	106.8	117.1	120.3	111.8	106.3	113.4	113.0	114.7
Oct....	126.6	122.1	106.8	118.5	119.5	111.8	106.3	113.4	112.8	115.2
Nov...	115.1	127.4	106.8	116.4	119.3	115.8	106.3	113.4	113.7	114.9
Dec....	<sup>b</sup> 115.1	127.4	106.8	116.4	121.7	119.8	110.4	113.4	116.3	116.4
1903....	115.7	120.8	103.0	113.2	115.0	108.8	101.9	108.7	108.6	110.6

Month.	Cloths and clothing.								
	Shirtings: bleached.						Silk: raw.		
	4-4, Fruit of the Loom.	4-4, Hope.	4-4, Lons- dale.	4-4, New York Mills.	4-4, Wam- sutta <0> XX.	Average.	Italian, classical.	Japan, filatures.	Average.
Jan....	101.4	101.7	98.1	92.7	100.2	98.8	102.9	104.7	103.8
Feb....	101.4	103.7	99.7	94.6	100.2	99.9	102.9	105.9	104.4
Mar...	103.0	105.6	99.7	90.2	100.2	99.7	102.9	106.2	104.6
Apr....	103.0	105.6	103.2	92.5	100.2	100.9	102.9	103.8	103.4
May...	104.8	105.6	103.2	95.8	100.2	101.9	104.7	102.6	103.7
June...	104.8	105.6	103.2	91.7	100.2	101.1	109.3	104.7	107.0
July...	104.8	109.4	106.6	96.1	105.2	104.4	109.3	103.8	106.6
Aug...	108.2	109.4	106.6	93.5	105.2	104.6	108.2	103.2	105.7
Sept...	108.2	109.4	106.6	106.5	105.2	107.2	109.9	103.5	106.7
Oct....	108.2	109.4	106.6	101.5	105.2	106.2	110.5	103.8	107.2
Nov...	108.2	109.4	106.6	106.7	105.2	107.2	109.3	99.6	104.5
Dec....	108.2	111.3	106.6	102.3	105.2	106.7	102.6	92.9	97.8
1903....	105.4	107.1	103.9	97.0	102.7	103.2	106.3	102.9	104.6

α Average for 1897-1899=100.                      b Nominal price; see explanation on page 243.

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Cloths and clothing.							
	Suitsings.							Tickings: Amos- keag A. C. A.
	Clay worsted di- agonal, 12- ounce, Washing- ton Mills. <sup>a</sup>	Clay worsted di- agonal, 16- ounce, Washing- ton Mills. <sup>a</sup>	Indigo blue, all wool, 54-inch, 14- ounce, Mid- dlesex.	Indigo blue, all wool, 16- ounce.	Serge, Washing- ton Mills, 6,700. (b)	Trouser- ings, fancy worsted. (b)	Aver- age.	
Jan....	117.5	114.0	108.8	112.6	101.6	104.6	109.9	99.0
Feb....	117.5	114.0	108.8	112.6	101.6	104.6	109.9	99.0
Mar...	117.5	114.0	108.8	112.6	101.6	104.6	109.9	99.0
Apr....	117.5	114.0	108.8	112.6	101.6	104.6	109.9	99.0
May...	117.5	114.0	108.8	112.6	101.6	104.6	109.9	99.0
June..	117.5	114.0	108.8	112.6	101.6	104.6	109.9	103.7
July...	117.5	114.0	108.8	112.6	101.6	104.6	109.9	108.4
Aug...	112.0	109.5	108.8	112.6	98.7	104.6	107.7	108.4
Sept...	112.0	109.5	108.8	112.6	98.7	104.6	107.7	108.4
Oct....	112.0	109.5	108.8	112.6	98.7	104.6	107.7	108.4
Nov...	112.0	109.5	108.8	112.6	98.7	104.6	107.7	108.4
Dec....	112.0	109.5	108.8	112.6	98.7	104.6	107.7	108.4
1903....	115.2	112.1	108.8	112.6	100.4	104.6	109.0	104.1

Month.	Cloths and clothing.									
	Underwear.			Women's dress goods.						
	Shirts and drawers, white, all wool, etc.	Shirts and drawers, white, merino, wool and cotton.	Aver- age.	Alpaca, cotton warp, 22-inch, Hamil- ton.	Cash- mere, all wool, 10-11 twill, 38- inch, At- lantic J.	Cash- mere, cotton warp, 9-twill, 4-4, At- lantic F.	Cash- mere, cotton warp, 22-inch, Hamil- ton.	Cash- mere, cotton warp, 27-inch, Hamil- ton.	Frank- lin sack- ings, 6-4.	Aver- age.
Jan....	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
Feb....	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
Mar...	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
Apr....	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
May...	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
June..	100.4	95.4	97.9	100.9	111.3	108.0	97.0	99.9	115.3	105.4
July...	100.4	95.4	97.9	100.9	117.2	112.8	97.0	99.9	115.3	107.2
Aug...	100.4	95.4	97.9	100.9	117.2	112.8	97.0	99.9	115.3	107.2
Sept...	100.4	95.4	97.9	100.9	117.2	112.8	97.0	99.9	115.3	107.2
Oct....	100.4	95.4	97.9	100.9	117.2	112.8	100.3	105.4	115.3	108.7
Nov...	100.4	95.4	97.9	104.6	117.2	112.8	100.3	105.4	110.7	108.5
Dec...	100.4	95.4	97.9	104.6	117.2	112.8	100.3	105.4	110.7	108.5
1903....	100.4	95.4	97.9	101.5	114.3	110.5	97.8	101.2	114.5	106.6

Month.	Cloths and clothing.						
	Wool.			Worsted yarns.			Average, cloths and clothing.
	Ohio, fine fleece (X and XX grade), scoured.	Ohio, me- dium fleece ( $\frac{1}{4}$ and $\frac{3}{8}$ grade), scoured.	Average.	2-40s, Austra- lian fine.	2-40s, XXXX, white, in skeins.	Average.	
Jan....	115.5	101.4	108.5	117.8	122.1	120.0	104.2
Feb....	117.4	103.0	110.2	117.8	122.1	120.0	104.5
Mar ...	115.5	101.4	108.5	117.8	122.1	120.0	104.9
Apr....	113.6	99.7	106.7	117.8	122.1	120.0	105.0
May ...	109.7	96.5	103.1	115.4	122.1	118.8	105.4
June...	111.7	98.1	104.9	115.4	119.2	117.3	106.3
July...	121.6	103.0	112.3	115.4	119.2	117.3	107.5
Aug ...	121.6	103.0	112.3	115.4	119.2	117.3	107.8
Sept ...	123.2	103.0	113.1	115.4	119.2	117.3	108.2
Oct ....	123.2	103.0	113.1	112.9	119.2	116.1	108.0
Nov ...	123.2	106.3	114.8	112.9	119.2	116.1	108.1
Dec ....	125.1	106.3	115.7	112.9	119.2	116.1	108.6
1903....	118.5	102.1	110.3	115.6	120.4	118.0	106.6

<sup>a</sup> Average for 1895-1899=100.<sup>b</sup> Average for 1892-1899=100.



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Fuel and lighting.										
	Candles: adaman- tine, 6s, 14- ounce.	Coal.									
		Anthracite.					Bituminous.				Aver- age.
		Bro- ken.	Chest- nut.	Egg.	Stove.	Aver- age.	Georges Creek (at mine).	Georges Creek (f. o. b. New York Harbor).	Pitts- burg (Yough- ioghe- ny).	Aver- age.	
Jan....	140.7	117.5	137.7	137.7	130.4	130.8	450.1	289.8	155.5	298.5	202.7
Feb....	140.7	118.8	137.7	137.7	130.4	131.2	506.4	237.0	155.5	299.6	203.4
Mar...	140.7	118.0	137.7	137.7	130.4	131.0	281.3	153.1	155.5	196.6	159.1
Apr....	140.7	125.0	123.8	123.9	117.3	122.5	253.2	153.1	140.0	182.1	148.0
May...	140.7	127.8	126.6	126.6	119.9	125.2	225.0	140.4	140.0	168.5	143.8
June..	140.7	130.7	129.2	129.4	122.3	127.9	225.0	140.4	140.0	168.5	145.3
July...	108.7	132.5	132.1	132.3	125.2	130.5	225.0	140.4	140.0	168.5	146.8
Aug...	115.1	132.9	134.9	135.0	127.8	132.7	225.0	140.4	140.0	168.5	148.0
Sept...	115.1	131.7	137.7	137.7	130.4	134.4	225.0	140.4	140.0	168.5	149.0
Oct....	115.1	126.6	137.7	137.7	130.4	133.1	225.0	140.4	140.0	168.5	148.3
Nov...	115.1	126.2	137.7	137.7	130.5	133.0	196.9	133.1	140.0	156.7	143.2
Dec....	115.1	127.0	137.7	137.7	130.4	133.2	196.9	133.1	140.0	156.7	143.3
1903....	127.4	126.2	134.2	134.3	127.1	130.5	269.6	161.8	143.9	191.8	156.7

Month.	Fuel and lighting.							
	Coke: Connells- ville, furnace.	Matches: parlor, do- mestic.	Petroleum.					Average, fuel and lighting.
			Crude.	Refined.			Average.	
				For export.	150° fire test, w. w.	Average.		
Jan....	235.5	85.4	167.5	127.9	146.1	137.0	147.2	178.6
Feb....	235.5	85.4	164.8	126.3	146.1	136.2	145.7	178.6
Mar ...	235.5	85.4	164.8	126.3	146.1	136.2	145.7	154.8
Apr....	228.2	85.4	165.9	128.7	151.7	140.2	148.8	149.0
May...	206.1	85.4	166.4	128.7	151.7	140.2	148.9	145.0
June ..	169.3	85.4	164.8	131.7	151.7	141.7	149.4	143.1
July ...	161.9	85.4	167.5	131.7	151.7	141.7	150.3	141.1
Aug ...	132.5	85.4	171.4	131.7	151.7	141.7	151.6	140.3
Sept ...	125.1	85.4	172.8	131.7	151.7	141.7	152.1	140.4
Oct ....	125.1	85.4	185.1	135.6	151.7	143.7	157.5	141.2
Nov ...	110.4	85.4	196.4	143.3	168.5	155.9	169.4	140.1
Dec....	92.7	85.4	207.0	146.4	168.5	157.5	174.0	139.8
1903....	171.5	85.4	174.5	132.5	153.1	142.8	153.4	149.3

Month.	Metals and implements.											
	Bar iron: best refined.			Barb wire: galvan-ized.	Builders' hardware.				Copper.			
	From mill (Pitts-burg mar-ket).	From store (Phila-delphia mar-ket).	Aver-age.		Butts: loose joint, cast, 3 x 3 in.	Door-knobs: steel, bronze plated.	Locks: com-mon mor-tise.	Aver-age.	Ingot, lake.	Sheet, hot-rolled (base sizes).	Wire, bare.	Aver-age.
Jan. ....	137.9	134.1	136.0	106.1	126.6	132.6	110.2	123.1	98.8	108.5	93.1	100.1
Feb. ....	137.9	134.1	136.0	108.9	126.6	132.6	110.2	123.1	102.8	108.5	97.3	102.9
Mar ...	137.9	134.1	136.0	110.8	126.6	132.6	110.2	123.1	110.5	120.6	108.5	113.2
Apr. ....	137.9	134.1	136.0	109.7	126.6	132.6	110.2	123.1	122.6	120.6	111.9	118.4
May ...	137.9	131.7	134.8	108.9	126.6	132.6	110.2	123.1	121.6	120.6	110.2	117.5
June ..	122.1	126.8	124.5	108.9	126.6	132.6	110.2	123.1	120.6	120.6	108.5	116.6
July ...	117.2	122.6	119.9	108.9	126.6	132.6	110.2	123.1	115.5	120.6	101.6	112.6
Aug ...	117.2	117.7	117.5	108.9	126.6	132.6	110.2	123.1	106.4	120.6	100.8	109.3
Sept ...	117.2	110.4	113.8	108.9	126.6	132.6	110.2	123.1	111.9	120.6	100.8	111.1
Oct. ....	117.2	110.4	113.8	108.9	126.6	132.6	110.2	123.1	107.9	108.5	99.0	105.1
Nov ...	92.4	104.3	98.4	108.9	126.6	132.6	110.2	123.1	112.5	108.5	98.2	106.4
Dec. ....	89.7	104.3	97.0	102.9	126.6	132.6	110.2	123.1	99.3	108.5	97.3	101.7
1903. ....	122.1	122.0	122.1	108.4	126.6	132.6	110.2	123.1	110.9	115.6	102.3	109.6



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Metals and implements.									
	Lead: pig.	Lead pipe.	Nails.			Pig iron.				
			Cut, 8-penny, fence and com- mon.	Wire, 8-penny, fence and com- mon.	Aver- age.	Besse- mer.	Foundry No. 1.	Foundry No. 2.	Gray forge, South- ern, coke.	Aver- age.
Jan....	107.9	107.9	117.6	92.5	105.1	165.8	162.1	181.9	189.4	174.8
Feb....	108.4	112.1	120.4	92.5	106.5	159.0	160.4	174.3	182.6	169.1
Mar....	108.4	115.2	120.4	97.1	108.8	158.6	158.7	175.1	182.6	168.8
Apr....	122.6	118.3	123.1	97.1	110.1	154.4	153.3	167.4	173.6	162.2
May...	115.0	112.1	123.1	97.1	110.1	145.2	144.4	162.8	164.6	154.3
June...	115.0	106.9	123.1	97.1	110.1	143.1	139.3	159.0	148.8	147.6
July...	107.9	104.8	123.1	97.1	110.1	137.4	128.3	152.3	145.4	140.9
Aug...	110.2	104.8	123.1	97.1	110.1	133.2	121.6	134.1	134.1	130.8
Sept...	107.9	101.7	123.1	97.1	110.1	125.0	118.2	119.7	126.2	122.3
Oct....	116.8	105.8	123.1	97.1	110.1	116.1	112.8	114.9	111.6	113.9
Nov...	116.8	105.8	112.2	97.1	104.7	110.2	108.1	111.1	99.2	107.2
Dec....	111.5	105.8	109.4	92.5	101.0	104.5	107.1	107.3	98.1	104.3
1903....	112.3	107.8	120.2	96.0	108.1	137.7	134.5	146.6	146.4	141.3

Month.	Metals and implements.							
	Quicksil- ver.	Silver: bar, fine.	Spelter: Western.	Steel bil- lets.	Steel rails.	Steel sheets: black, No. 27. (a)	Tin: pig.	Tin plates: domestic, Bessemer, coke, 14 x 20 in. (b)
Jan....	114.4	64.4	104.0	137.5	107.4	118.3	152.5	111.0
Feb....	113.5	64.7	110.6	139.4	107.4	118.3	156.3	111.0
Mar....	113.5	65.9	118.5	142.2	107.4	118.3	167.8	116.8
Apr....	114.4	68.4	126.1	140.3	107.4	118.3	164.8	116.8
May...	115.3	73.1	127.2	140.5	107.4	118.3	163.4	116.8
June...	115.3	71.5	127.2	134.1	107.4	120.5	155.9	116.8
July...	112.6	72.8	136.9	127.3	107.4	120.5	153.5	116.8
Aug...	112.6	74.9	130.1	125.4	107.4	116.1	154.7	116.8
Sept...	112.6	78.2	132.7	125.4	107.4	115.2	147.8	116.8
Oct....	110.9	81.4	132.7	125.4	107.4	115.2	142.6	116.8
Nov...	112.6	78.4	122.8	111.5	107.4	111.6	140.3	116.8
Dec....	112.6	74.8	116.2	106.8	107.4	104.0	141.1	111.0
1903....	113.4	72.4	123.5	129.7	107.4	116.1	153.4	115.4

Month.	Metals and implements.								
	Tools.								
	Augers: extra, 4-inch.	Axes: M. C. O., Yankee.	Chisels: extra, socket firmer, 1-inch.	Files: 8-inch mill bastard.	Ham- mers: Maydole No. 1½.	Planes: Bailey No. 5.	Saws.		
							Crosscut, Disston.	Hand, Disston No. 7.	Average.
Jan....	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Feb....	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Mar....	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Apr....	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
May...	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
June...	143.7	108.7	147.8	123.1	129.0	115.7	100.0	98.6	99.3
July...	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Aug...	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Sept...	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Oct....	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Nov...	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
Dec....	143.7	106.5	147.8	123.1	129.0	115.7	100.0	98.6	99.3
1903....	143.7	107.6	147.8	123.1	129.0	115.7	100.0	98.6	99.3

<sup>a</sup> Average for the period July, 1894, to December, 1899=100.

<sup>b</sup> Average for 1896-1899=100.



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Metals and implements.						
	Tools.				Wood screws: 1-inch, No. 10, flat- head.	Zinc: sheet.	Average, metals and implements.
	Shovels: Ames No. 2.	Trowels: M. C. O., brick, 10 <sup>1</sup> / <sub>2</sub> -inch.	Vises: solid box, 50- pound.	Average.			
Jan....	102.0	100.0	117.9	117.0	60.9	108.3	119.4
Feb....	102.0	100.0	117.9	117.0	60.9	108.3	119.6
Mar....	102.0	100.0	117.9	117.0	73.2	108.3	121.6
Apr....	102.0	100.0	147.4	119.6	73.2	116.9	123.1
May....	102.0	100.0	147.4	119.6	73.2	116.9	121.9
June....	102.0	100.0	132.8	118.3	73.2	116.9	119.7
July....	102.0	100.0	132.8	118.1	73.2	116.9	118.1
Aug....	102.0	100.0	147.4	119.4	76.2	116.9	117.0
Sept....	102.0	100.0	147.4	119.4	76.2	116.9	115.8
Oct....	102.0	100.0	132.8	118.1	76.2	116.9	114.3
Nov....	102.0	100.0	132.8	118.1	76.2	116.9	111.8
Dec....	102.0	100.0	117.9	116.8	76.2	99.6	109.0
1903....	102.0	100.0	132.7	118.2	72.4	113.3	117.6

Month.	Lumber and building materials.							
	Brick: common domestic.	Carbonate of lead: American, in oil.	Cement.			Doors: pine.	Lime: common.	Linseed oil: raw.
			Portland, domestic. (a)	Rosendale.	Average.			
Jan....	103.4	93.4	106.4	104.3	105.4	169.3	97.2	101.4
Feb....	103.4	97.7	103.9	112.7	108.3	169.3	97.2	101.4
Mar....	92.1	97.7	106.4	109.9	108.2	169.3	91.2	101.4
Apr....	92.1	110.4	107.7	95.8	101.8	169.3	91.2	101.4
May....	94.4	114.7	106.4	101.5	104.0	169.3	91.2	97.0
June....	89.9	114.7	110.2	101.5	105.9	164.7	91.2	97.0
July....	92.1	114.7	107.7	98.6	103.2	164.7	91.2	88.2
Aug....	98.9	110.4	100.2	95.8	98.0	155.5	91.2	83.8
Sept....	121.3	110.4	100.2	95.8	98.0	155.5	98.4	81.6
Oct....	125.8	106.2	87.7	95.8	91.8	141.8	98.4	86.0
Nov....	130.3	106.2	93.9	95.8	94.9	141.8	98.4	81.6
Dec....	130.3	101.9	88.9	95.8	92.4	128.1	97.2	81.6
1903....	106.2	106.6	101.6	100.3	101.0	158.2	94.5	91.9

Month.	Lumber and building materials.									
	Lumber.									
	Hem- lock.	Maple: hard.	Oak: white.			Pine.				
			Plain.	Quar- tered.	Aver- age.	White, boards.			Yellow.	Average.
						No. 2 barn.	Uppers.	Aver- age.		
Jan....	137.9	105.6	113.5	130.4	122.0	140.3	171.8	156.1	113.7	141.9
Feb....	137.9	105.6	113.5	130.4	122.0	140.3	171.8	156.1	113.7	141.9
Mar....	137.9	117.0	113.5	130.4	122.0	140.3	171.8	156.1	113.7	141.9
Apr....	137.9	117.0	113.5	130.4	122.0	140.3	171.8	156.1	113.7	141.9
May....	137.9	117.0	113.5	130.4	122.0	140.3	171.8	156.1	113.7	141.9
June....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
July....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
Aug....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
Sept....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
Oct....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
Nov....	142.1	124.5	124.2	144.4	134.3	140.3	171.8	156.1	113.7	141.9
Dec....	142.1	124.5	124.2	153.7	139.0	140.3	171.8	156.1	113.7	141.9
1903....	140.4	119.5	119.8	139.3	129.6	140.3	171.8	156.1	113.7	141.9

a Average for 1895-1899=100.

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Lumber and building materials.								
	Lumber.			Oxide of zinc.	Plate glass: polished, unsilvered.			Putty.	Resin: good, strained.
	Poplar.	Spruce.	Average.		Area, 3 to 5 square feet.	Area, 5 to 10 square feet.	Average.		
Jan....	143.5	127.2	131.5	115.8	74.4	85.7	80.1	142.4	133.7
Feb....	146.7	127.2	131.9	115.8	74.4	85.7	80.1	142.4	145.8
Mar....	151.4	127.2	133.7	115.8	74.4	85.7	80.1	142.4	158.0
Apr....	151.4	127.2	133.7	115.8	74.4	85.7	80.1	71.5	159.7
May....	151.4	127.2	133.7	115.8	74.4	85.7	80.1	71.5	147.6
June...	165.0	132.4	139.8	115.8	74.4	85.7	80.1	71.5	144.1
July....	165.0	132.4	139.8	115.8	74.4	85.7	80.1	71.5	143.2
Aug....	165.0	132.4	139.8	115.8	74.4	85.7	80.1	71.5	137.2
Sept....	165.0	142.9	141.0	115.8	74.4	85.7	80.1	71.5	145.8
Oct....	165.0	142.9	141.0	115.8	66.1	75.1	70.6	71.5	159.7
Nov....	165.0	142.9	141.0	115.8	66.1	75.1	70.6	71.5	192.7
Dec....	165.0	142.9	142.0	115.8	66.1	75.1	70.6	71.5	178.8
1903....	158.3	133.7	137.4	115.8	72.3	83.1	77.7	89.2	153.9

Month.	Lumber and building materials.								
	Shingles.			Tar.	Turpen- tine: spirits of.	Window glass: American, single.			Average, lumber and building mate- rials.
	Cypress.	White pine.	Average.			Firsts, 6 x 8 to 10 x 15 inch.	Thirds, 6 x 8 to 10 x 15 inch.	Average.	
Jan....	88.6	125.1	106.9	132.8	166.0	119.6	115.8	117.7	120.7
Feb....	88.6	125.1	106.9	132.8	195.9	119.6	115.8	117.7	122.8
Mar....	88.6	125.1	106.9	137.0	196.7	119.6	115.8	117.7	123.3
Apr....	88.6	125.1	106.9	137.0	201.2	119.6	115.8	117.7	120.9
May....	92.2	125.1	108.7	137.0	143.6	119.6	115.8	117.7	118.7
June....	92.2	125.1	108.7	137.0	146.6	119.6	115.8	117.7	120.6
July....	92.2	125.1	108.7	137.0	148.1	119.6	115.8	117.7	120.1
Aug....	92.2	125.1	108.7	137.0	157.0	119.6	115.8	117.7	119.5
Sept....	92.2	125.1	108.7	137.0	164.5	119.6	115.8	117.7	121.5
Oct....	92.2	125.1	108.7	149.4	175.0	119.6	115.8	117.7	121.3
Nov....	92.2	125.1	108.7	149.4	179.5	138.0	133.6	135.8	124.3
Dec....	92.2	125.1	108.7	149.4	177.2	138.0	133.6	135.8	123.1
1903....	91.0	125.1	108.1	139.4	171.0	122.7	118.7	120.7	121.4

Month.	Drugs and chemicals.									
	Alcohol: grain, 94 per cent.	Alcohol: wood, re- fined, 95 per cent.	Alum: lump.	Brim- stone: crude, seconds.	Glycer- in: re- fined.	Muriatic acid: 20°.	Opium: natural, in cases.	Quinine: Ameri- can.	Sul- phuric acid: 66°.	Average, drugs and chemi- cals.
Jan....	108.5	68.1	104.8	111.1	103.6	153.8	115.5	105.7	134.8	111.8
Feb....	107.6	68.1	104.8	108.7	103.6	153.8	115.5	105.7	134.8	111.4
Mar....	107.6	68.1	104.8	109.9	103.6	153.8	127.1	113.8	134.8	113.7
Apr....	106.7	68.1	98.8	106.3	103.6	153.8	125.0	105.7	134.8	111.4
May....	106.2	68.1	98.8	107.5	103.6	153.8	125.0	105.7	146.1	112.8
June....	106.2	68.1	104.8	107.5	103.6	153.8	135.6	97.6	146.1	113.7
July....	105.8	68.1	104.8	107.5	103.6	153.8	134.5	93.5	146.1	113.1
Aug....	105.8	57.7	104.8	107.5	103.6	153.8	148.3	97.6	146.1	113.9
Sept....	105.8	52.4	104.8	107.5	103.6	153.8	139.8	101.6	146.1	112.8
Oct....	105.8	52.4	104.8	107.5	103.6	153.8	137.7	101.6	146.1	112.6
Nov....	108.5	52.4	104.8	107.5	101.9	153.8	135.6	101.6	146.1	112.5
Dec....	108.9	52.4	104.8	106.3	101.9	153.8	127.1	101.6	146.1	111.4
1903....	106.9	62.0	103.6	107.9	103.4	153.8	130.6	102.6	142.7	112.6



TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	House furnishing goods.								
	Earthenware.				Furniture.				
	Plates, cream-colored.	Plates, white granite.	Teacups and saucers, white granite.	Average.	Bedroom sets, ash.	Chairs, bedroom, maple.	Chairs, kitchen.	Tables, kitchen.	Average.
Jan....	115.4	111.4	107.4	111.4	111.3	121.1	130.7	108.1	117.8
Feb....	115.4	111.4	107.4	111.4	111.3	121.1	130.7	108.1	117.8
Mar....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Apr....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
May....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
June....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
July....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Aug....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Sept....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Oct....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Nov....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
Dec....	115.4	111.4	107.4	111.4	116.1	129.1	130.7	108.1	121.0
1903....	115.4	111.4	107.4	111.4	115.3	127.8	130.7	108.1	120.5

Month.	House furnishing goods.										
	Glassware.				Table cutlery.			Wooden ware.			Average, house-furnishing goods.
	Nappies, 4-inch.	Pitchers, $\frac{1}{2}$ -gallon, common.	Tumblers, $\frac{1}{2}$ -pint, common.	Average.	Carvers, stag handles.	Knives and forks, cocobolo handles.	Average.	Pails, oak-grained.	Tubs, oak-grained.	Average.	
Jan....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	112.2
Feb....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	112.2
Mar....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
Apr....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
May....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
June....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
July....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
Aug....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	113.1
Sept....	125.0	110.6	95.8	110.5	93.8	107.3	100.6	119.3	107.6	113.5	112.7
Oct....	125.0	110.6	95.8	110.5	93.8	107.3	100.6	130.9	107.6	119.3	113.5
Nov....	125.0	110.6	95.8	110.5	93.8	107.3	100.6	130.9	107.6	119.3	113.5
Dec....	125.0	110.6	95.8	110.5	93.8	107.3	100.6	130.9	107.6	119.3	113.5
1903....	125.0	110.6	99.5	111.7	93.8	107.3	100.6	122.2	107.6	114.9	113.0

Month.	Miscellaneous.							
	Cotton-seed meal.	Cotton-seed oil: summer yellow, prime.	Jute: raw.	Malt: Western made.	Paper.			Proof spirits.
					News.	Wrapping, manila.	Average.	
Jan....	125.2	128.1	111.4	104.6	88.0	88.2	88.1	113.3
Feb....	125.2	130.6	135.9	104.6	88.0	94.9	91.5	113.1
Mar....	124.1	134.7	135.9	104.6	88.0	94.9	91.5	113.1
Apr....	124.1	133.0	135.9	104.6	83.6	96.0	89.8	113.1
May....	120.7	142.9	135.9	104.6	83.6	96.0	89.8	113.1
June....	118.4	139.6	135.9	101.7	83.6	96.0	89.8	113.1
July....	118.4	136.3	135.9	101.7	83.6	96.0	89.8	113.1
Aug....	120.7	138.0	135.9	101.7	83.6	96.0	89.8	110.9
Sept....	122.9	134.7	129.0	104.6	83.6	96.0	89.8	107.0
Oct....	120.7	131.4	129.0	102.4	83.6	96.0	89.8	108.3
Nov....	119.5	108.4	115.0	101.7	83.6	96.0	89.8	108.7
Dec....	119.5	110.1	115.0	100.3	83.6	96.0	89.8	110.2
1903....	121.6	130.7	129.2	103.1	84.6	95.1	89.9	111.4

TABLE III.—RELATIVE PRICES OF COMMODITIES IN 1903—Concluded.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I. Relative price for 1903 computed from average price for the year as shown in Table I.]

Month.	Miscellaneous.							
	Rope: ma- nila.	Rubber: Para Island.	Soap: cas- tile, mottled, pure.	Starch: laundry.	Tobacco.			Average, miscel- laneous.
					Plug, Horseshoe.	Smoking, granu- lated, Seal of N. C.	Average.	
Jan....	120.4	108.0	116.5	143.7	113.6	112.0	112.8	113.3
Feb....	115.1	104.3	116.5	122.1	113.6	112.0	112.8	113.5
Mar....	121.8	111.8	116.5	122.1	113.6	112.0	112.8	114.9
Apr....	120.4	109.3	116.5	122.1	113.6	112.0	112.8	114.2
May...	123.1	111.8	116.5	122.1	113.6	112.0	112.8	115.1
June...	125.8	107.4	116.5	122.1	113.6	112.0	112.8	114.3
July...	125.8	110.5	116.5	122.1	113.6	112.0	112.8	114.3
Aug...	123.1	113.0	116.5	122.1	113.6	112.0	112.8	114.4
Sept...	124.5	120.5	116.5	122.1	113.6	112.0	112.8	114.4
Oct....	125.8	126.8	116.5	122.1	113.6	112.0	112.8	114.5
Nov...	123.1	119.3	112.1	122.1	113.6	112.0	112.8	110.4
Dec....	123.1	114.3	112.1	122.1	113.6	112.0	112.8	110.1
1903....	122.7	113.1	115.6	123.9	113.6	112.0	112.8	113.6

TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903.

[For a more detailed description of the articles see Table I.]

Year.	Farm products.									
	Barley: by sample.		Cattle: steers, choice to extra.		Cattle: steers, good to choice.		Corn: No. 2, cash.		Cotton: upland, middling.	
	Average price per bushel.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per bushel.	Rela- tive price.	Average price per pound.	Rela- tive price.
Average, 1890-1899 .	\$0.4534	100.0	\$5.3203	100.0	\$4.7347	100.0	\$0.3804	100.0	\$0.07762	100.0
1890 .....	.5062	111.6	4.8697	91.5	4.1375	87.4	.3950	103.8	.11089	142.9
1891 .....	.6098	134.5	5.8851	110.6	5.0976	107.7	.5744	151.0	.08603	110.8
1892 .....	.5085	112.2	5.0909	95.7	4.4995	95.0	.4500	118.3	.07686	99.0
1893 .....	.4685	103.3	5.5211	103.8	4.8394	102.2	.3964	104.2	.08319	107.2
1894 .....	.5134	113.2	5.1591	97.0	4.5245	95.6	.4326	113.7	.07002	90.2
1895 .....	.4300	94.8	5.4849	103.1	4.9344	104.2	.3955	104.0	.07298	94.0
1896 .....	.2977	65.7	4.5957	86.4	4.2712	90.2	.2580	67.8	.07918	102.0
1897 .....	.3226	71.2	5.2255	98.2	4.7736	100.8	.2546	66.9	.07153	92.2
1898 .....	.4348	95.9	5.3779	101.1	4.8846	103.2	.3144	82.6	.05972	76.9
1899 .....	.4425	97.6	5.9928	112.6	5.3851	113.7	.3333	87.6	.06578	84.7
1900 .....	.4815	106.2	5.7827	108.7	5.3938	113.9	.3811	100.2	.09609	123.8
1901 .....	.5884	129.8	6.1217	115.1	5.5901	118.1	.4969	130.6	.08627	111.1
1902 .....	.6321	139.4	7.4721	140.4	6.5572	138.5	.5968	156.9	.08932	115.1
1903 .....	.5494	121.2	5.5678	104.7	5.0615	106.9	.4606	121.1	.11235	144.7

Year.	Farm products.									
	Flaxseed: No. 1.		Hay: timothy, No. 1.		Hides: green, salted, packers, heavy native steers.		Hogs: heavy.		Hogs: light.	
	Average price per bushel.	Rela- tive price.	Average price per ton.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.
Average, 1890-1899 .	\$1.1132	100.0	\$10.4304	100.0	\$0.0937	100.0	\$4.4123	100.0	\$4.4206	100.0
1890 .....	1.3967	125.5	9.9952	95.8	.0933	99.6	3.9534	89.6	3.9260	88.8
1891 .....	1.0805	97.1	12.2861	117.8	.0951	101.5	4.4229	100.2	4.3404	98.2
1892 .....	1.0179	91.4	11.8375	113.5	.0870	92.8	5.1550	116.8	5.0675	114.6
1893 .....	1.0875	97.7	11.2067	107.4	.0749	79.9	6.5486	148.4	6.5752	148.7
1894 .....	1.3533	121.6	10.4183	99.9	.0641	68.4	4.9719	112.7	4.9327	111.6
1895 .....	1.2449	111.8	11.3844	109.1	.1028	109.7	4.2781	97.0	4.2533	96.2
1896 .....	.8119	72.9	10.3269	99.0	.0811	86.6	3.3579	76.1	3.5591	80.5
1897 .....	.8696	78.1	8.4423	80.9	.0996	106.3	3.5906	81.4	3.7223	84.2
1898 .....	1.1115	99.8	8.3317	79.9	.1151	122.8	3.8053	86.2	3.7587	85.0
1899 .....	1.1578	104.0	10.0745	96.6	.1235	131.8	4.0394	91.5	4.0709	92.1
1900 .....	1.6223	145.7	11.5673	110.9	.1194	127.4	5.0815	115.2	5.1135	115.7
1901 .....	1.6227	145.8	12.8255	123.0	.1237	132.0	5.9580	135.0	5.9177	133.9
1902 .....	1.5027	135.0	12.6154	120.9	.1338	142.8	6.9704	158.0	6.7353	152.4
1903 .....	1.0471	94.1	12.4279	119.2	.1169	124.8	6.0572	137.3	6.0541	137.0



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Farm products.									
	Hops: New York State, choice.		Oats: cash.		Rye: No. 2, cash.		Sheep: native.		Sheep: Western.	
	Average price per pound.	Relative price.	Average price per bushel.	Relative price.	Average price per bushel.	Relative price.	Average price per 100 lbs.	Relative price.	Average price per 100 lbs.	Relative price.
Average, 1890-1899..	\$0.1771	100.0	\$0.2688	100.0	\$0.5288	100.0	\$3.7580	100.0	\$3.9541	100.0
1890 .....	.2621	148.0	.3106	115.6	.5447	103.0	4.5284	120.5	4.6644	118.0
1891 .....	.2640	149.1	.3873	144.1	.8334	157.6	4.5106	120.0	4.5719	115.6
1892 .....	.2505	141.4	.3042	113.2	.6754	127.7	4.7798	127.2	4.8695	123.2
1893 .....	.2271	128.2	.2827	105.2	.4899	92.6	3.8781	103.2	4.1255	104.3
1894 .....	.1515	85.5	.3110	115.7	.4660	88.1	2.6957	71.7	2.9808	75.4
1895 .....	.0940	53.1	.2373	88.3	.4825	91.2	2.9495	78.5	3.0943	78.3
1896 .....	.0877	49.5	.1801	67.0	.3517	66.5	2.9322	78.0	3.1411	79.4
1897 .....	.1160	65.5	.1825	67.9	.3962	74.9	3.4971	93.1	3.7692	95.3
1898 .....	.1621	91.5	.2470	91.9	.4958	93.8	3.9250	104.4	4.1625	105.3
1899 .....	.1563	88.3	.2452	91.2	.5521	104.4	3.8837	103.3	4.1615	105.2
1900 .....	.1483	83.7	.2271	84.5	.5177	97.9	4.1236	109.7	4.5207	114.3
1901 .....	.1719	97.1	.3179	118.3	.5328	100.8	3.3519	89.2	3.7442	94.7
1902 .....	.2375	134.1	.3960	147.3	.5418	102.5	3.7817	100.6	4.1784	105.7
1903 .....	.2825	159.5	.3541	131.7	.5156	97.5	3.7101	98.7	3.8769	98.0

Year.	Farm products.				Food, etc.					
	Wheat: contract grades, cash.		Beans: medium, choice.		Bread: crackers, Boston X.		Bread: crackers, soda.		Bread: loaf (Washington market).	
	Average price per bushel.	Relative price.	Average price per bushel.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per loaf.	Relative price.
Average, 1890-1899..	\$0.7510	100.0	\$1.6699	100.0	\$0.0673	100.0	\$0.0718	100.0	\$0.0398	100.0
1890 .....	.8933	118.9	2.0292	121.5	.0700	104.0	.0800	111.4	.0400	100.5
1891 .....	.9618	128.1	2.2531	134.9	.0700	104.0	.0800	111.4	.0400	100.5
1892 .....	.7876	104.9	1.8698	112.0	.0688	102.2	.0763	106.3	.0400	100.5
1893 .....	.6770	90.1	1.9906	119.2	.0650	96.6	.0750	104.5	.0400	100.5
1894 .....	.5587	74.4	1.8469	110.6	.0650	96.6	.0725	101.0	.0400	100.5
1895 .....	.6000	79.9	1.7896	107.2	.0654	97.2	.0675	94.0	.0375	94.2
1896 .....	.6413	85.4	1.1740	70.3	.0650	96.6	.0658	91.6	.0408	102.5
1897 .....	.7949	105.8	1.0448	62.6	.0592	88.0	.0592	82.5	.0400	100.5
1898 .....	.8849	117.8	1.2479	74.7	.0733	108.9	.0758	105.6	.0400	100.5
1899 .....	.7109	94.7	1.4531	87.0	.0713	105.9	.0663	92.3	.0400	100.5
1900 .....	.7040	93.7	2.0969	125.6	.0750	111.4	.0675	94.0	.0400	100.5
1901 .....	.7187	95.7	2.1927	131.3	.0800	118.9	.0700	97.5	.0400	100.5
1902 .....	.7414	98.7	1.9198	115.0	.0800	118.9	.0700	97.5	.0400	100.5
1903 .....	.7895	105.1	2.2625	135.5	.0758	112.6	.0646	90.0	.0400	100.5

Year.	Food, etc.									
	Bread: loaf, homemade (N. Y. market).		Bread: loaf, Vienna (N. Y. market).		Butter: creamery, Elgin (Elgin market).		Butter: creamery, extra (N. Y. market).		Butter: dairy, New York State.	
	Average price per loaf.	Relative price.	Average price per loaf.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.0396	100.0	\$0.0396	100.0	\$0.2170	100.0	\$0.2242	100.0	\$0.2024	100.0
1890 .....	.0400	101.0	.0400	101.0	.2238	103.1	.2276	101.5	.1954	96.5
1891 .....	.0400	101.0	.0400	101.0	.2501	115.3	.2586	115.3	.2380	117.6
1892 .....	.0400	101.0	.0400	101.0	.2528	116.5	.2612	116.5	.2350	116.1
1893 .....	.0400	101.0	.0400	101.0	.2581	118.9	.2701	120.5	.2521	124.6
1894 .....	.0400	101.0	.0400	101.0	.2194	101.1	.2288	102.1	.2091	103.3
1895 .....	.0400	101.0	.0400	101.0	.2064	95.1	.2137	95.3	.1882	93.0
1896 .....	.0358	90.4	.0358	90.4	.1793	82.6	.1841	82.1	.1665	82.3
1897 .....	.0400	101.0	.0400	101.0	.1837	84.7	.1895	84.5	.1684	83.2
1898 .....	.0400	101.0	.0400	101.0	.1886	86.9	.1954	87.2	.1749	86.4
1899 .....	.0400	101.0	.0400	101.0	.2075	95.6	.2126	94.8	.1965	97.1
1900 .....	.0400	101.0	.0400	101.0	.2178	100.4	.2245	100.1	.2115	104.5
1901 .....	.0400	101.0	.0400	101.0	.2114	97.4	.2163	96.5	.2007	99.2
1902 .....	.0400	101.0	.0400	101.0	.2413	111.2	.2480	110.6	.2318	114.5
1903 .....	.0400	101.0	.0400	101.0	.2302	106.1	.2348	104.7	.2150	106.2



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Food, etc.									
	Cheese: N. Y. State, full cream.		Coffee: Rio No. 7.		Eggs: new-laid, fancy, near-by.		Fish: cod, dry, bank, large.		Fish: herring, shore, round.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per dozen.	Relative price.	Average price per quintal.	Relative price.	Average price per barrel.	Relative price.
Average, 1890-1899..	\$0.0987	100.0	\$0.1313	100.0	\$0.1963	100.0	\$5.5849	100.0	\$3.7763	100.0
1890 .....	.0958	97.1	.1793	136.6	.1945	99.1	5.6771	101.7	3.5250	93.3
1891 .....	.1011	102.4	.1671	127.3	.2160	110.0	6.7292	120.5	4.7068	124.6
1892 .....	.1058	107.2	.1430	108.9	.2167	110.4	7.0521	126.3	2.9375	77.8
1893 .....	.1076	109.0	.1723	131.2	.2247	114.5	6.3802	114.2	3.8125	101.0
1894 .....	.1060	107.4	.1654	126.0	.1835	93.5	5.9583	106.7	3.3958	89.9
1895 .....	.0929	94.1	.1592	121.2	.2002	102.0	5.5208	98.9	3.1563	83.6
1896 .....	.0908	92.0	.1233	93.9	.1741	88.7	4.2083	75.4	3.3542	88.8
1897 .....	.0968	98.1	.0793	60.4	.1718	87.5	4.5208	80.9	3.6354	96.3
1898 .....	.0822	83.3	.0633	48.2	.1817	92.6	4.6667	83.6	4.2083	111.4
1899 .....	.1075	108.9	.0604	46.0	.1994	101.6	5.1354	92.0	5.0313	133.2
1900 .....	.1128	114.3	.0822	62.6	.1977	100.7	5.3021	94.9	5.0833	134.6
1901 .....	.1011	102.4	.0646	49.2	.2095	106.7	5.9896	107.2	4.9792	131.9
1902 .....	.1126	114.1	.0586	44.6	.2409	122.7	5.0938	91.2	4.9063	129.9
1903 .....	.1217	123.3	.0559	42.6	.2418	123.2	5.8646	105.0	5.7292	151.7

Year.	Food, etc.									
	Fish: mackerel, salt, large No.3s.		Fish: salmon, canned.		Flour: buck-wheat.		Flour: rye.		Flour: wheat, spring patents.	
	Average price per barrel.	Relative price.	Average price per 12 cans.	Relative price.	Average price per 100 lbs.	Relative price.	Average price per barrel.	Relative price.	Average price per barrel.	Relative price.
Average, 1890-1899..	\$14.1306	100.0	\$1.4731	100.0	\$1.9428	100.0	\$3.3171	100.0	\$4.2972	100.0
1890 .....	18.2500	129.2	1.6417	111.4	2.0214	104.0	3.3646	101.4	5.1856	120.7
1891 .....	15.3125	108.4	1.5000	101.8	2.4429	125.7	4.9208	148.3	5.3053	123.5
1892 .....	13.0000	92.0	1.4833	100.7	1.7891	92.1	4.0167	121.1	4.3466	101.1
1893 .....	13.0000	92.0	1.4938	101.4	2.3679	121.9	3.0854	93.0	4.0063	93.2
1894 .....	11.0556	78.2	1.4250	96.7	2.4357	125.4	2.7813	83.8	3.5947	83.7
1895 .....	15.6250	110.6	1.5042	102.1	1.6750	86.2	3.1333	94.5	3.6434	84.8
1896 .....	13.9167	98.5	1.5500	105.2	1.3806	71.1	2.6833	80.9	3.7957	88.3
1897 .....	12.2292	86.5	1.3375	90.8	1.4656	75.4	2.8063	84.6	4.5913	106.8
1898 .....	13.6667	96.7	1.2667	86.0	1.5500	79.8	3.0813	92.9	4.7293	110.1
1899 .....	15.2500	107.9	1.5292	103.8	2.3000	118.4	3.2979	99.4	3.7740	87.8
1900 .....	13.8958	98.3	1.7708	120.2	2.1036	108.3	3.4250	103.3	3.8423	89.4
1901 .....	10.8182	76.6	1.7125	116.3	2.1063	108.4	3.3208	100.1	3.8104	88.7
1902 .....	13.7500	97.3	1.6146	109.6	2.2357	115.1	3.4417	103.8	3.8082	88.6
1903 .....	17.4479	123.5	1.6208	110.0	2.3214	119.5	3.1479	94.9	4.3303	100.8

Year.	Food, etc.									
	Flour: wheat, winter straights.		Fruit: apples, evaporated, choice.		Fruit: apples, sun-dried, Southern, sliced.		Fruit: currants, in barrels.		Fruit: prunes, California, in boxes.	
	Average price per barrel.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$3.8450	100.0	\$0.0847	100.0	\$0.0515	100.0	\$0.0375	100.0	\$0.0774	100.0
1890 .....	4.6524	121.0	.1136	134.1	.0690	134.0	.0478	127.5	.1068	138.0
1891 .....	4.9048	127.6	.1100	129.9	.0825	160.2	.0426	113.6	.1000	129.2
1892 .....	4.1216	107.2	.0688	81.2	.0423	82.1	.0297	79.2	.0995	128.6
1893 .....	3.2832	85.4	.0927	109.4	.0508	98.6	.0270	72.0	.1039	134.2
1894 .....	2.7495	71.5	.1092	128.9	.0631	122.5	.0173	46.1	.0735	95.0
1895 .....	3.2311	84.0	.0678	80.0	.0481	93.4	.0254	67.7	.0666	86.0
1896 .....	3.6197	94.1	.0533	62.9	.0312	60.6	.0327	87.2	.0581	75.1
1897 .....	4.3606	113.4	.0555	65.5	.0267	51.8	.0479	127.7	.0546	70.5
1898 .....	4.1452	107.8	.0890	105.1	.0398	77.3	.0580	154.7	.0544	70.3
1899 .....	3.3822	88.0	.0869	102.6	.0610	118.4	.0470	125.3	.0565	73.0
1900 .....	3.3490	87.1	.0615	72.6	.0443	86.0	.0720	192.0	.0522	67.4
1901 .....	3.3085	86.0	.0709	83.7	.0410	79.6	.0831	221.6	.0525	67.8
1902 .....	3.4885	90.7	.0921	108.7	.0507	98.4	.0494	131.7	.0551	71.2
1903 .....	3.5923	93.4	.0611	72.1	.0432	83.9	.0476	126.9	.0481	62.1



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Food, etc.									
	Fruit: raisins, California, London layer.		Glucose: 41° and 42° mixing.		Lard: prime contract.		Meal: corn, fine white.		Meal: corn, fine yellow.	
	Average price per box.	Relative price.	Average price per 100 lbs.	Relative price.	Average price per pound.	Relative price.	Average price per 100 lbs.	Relative price.	Average price per 100 lbs.	Relative price.
Average, 1890-1899..	\$1.5006	100.0	\$1.4182	100.0	\$0.0654	100.0	\$1.0486	100.0	\$1.0169	100.0
1890 .....	2.3604	157.3	.....	.....	.0633	96.8	1.0613	101.2	1.0200	100.3
1891 .....	1.8021	120.1	.....	.....	.0660	100.9	1.4746	140.6	1.4579	143.4
1892 .....	1.4688	97.9	.....	.....	.0771	117.9	1.1921	113.7	1.1608	114.2
1893 .....	1.7000	113.3	1.7625	124.3	.1030	157.5	1.1013	105.0	1.0833	106.5
1894 .....	1.1542	76.9	1.5802	111.4	.0773	118.2	1.1188	106.7	1.0629	104.5
1895 .....	1.4292	95.2	1.5492	109.2	.0653	99.8	1.0721	102.2	1.0613	104.4
1896 .....	1.0188	67.9	1.1585	81.7	.0469	71.7	.8129	77.5	.7854	77.2
1897 .....	1.3979	93.2	1.2190	86.0	.0441	67.4	.8158	77.8	.7633	75.1
1898 .....	1.3917	92.7	1.3021	91.8	.0552	84.4	.8821	84.1	.8463	83.2
1899 .....	1.2833	85.5	1.3558	95.6	.0556	85.0	.9554	91.1	.9273	91.2
1900 .....	1.5208	101.3	1.4875	104.9	.0690	105.5	1.0115	96.5	.9908	97.4
1901 .....	1.4417	96.1	1.6453	116.0	.0885	135.3	1.1979	114.2	1.1875	116.8
1902 .....	1.6854	112.3	2.1788	153.6	.1059	161.9	1.5354	146.4	1.5250	150.0
1903 .....	1.4458	96.3	1.8396	129.7	.0877	134.1	1.2967	123.7	1.2783	125.7

Year.	Food, etc.									
	Meat: bacon, short clear sides.		Meat: bacon, short rib sides.		Meat: beef, fresh, native sides.		Meat: beef, salt, extra mess.		Meat: beef, salt, hams, Western.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per barrel.	Relative price.	Average price per barrel.	Relative price.
Average, 1890-1899..	\$0.0675	100.0	\$0.0656	100.0	\$0.0771	100.0	\$8.0166	100.0	\$18.0912	100.0
1890 .....	.0603	89.3	.0586	89.3	.0688	89.2	6.9596	86.8	14.5409	80.4
1891 .....	.0699	103.6	.0681	103.8	.0819	106.2	8.3654	104.4	15.5144	85.8
1892 .....	.0787	116.6	.0764	116.5	.0762	98.8	6.7966	84.8	14.5577	80.5
1893 .....	.1048	155.3	.1010	154.0	.0813	105.4	8.1938	102.2	17.8317	98.6
1894 .....	.0751	111.3	.0736	112.2	.0748	97.0	8.0933	101.0	18.3558	101.5
1895 .....	.0650	96.3	.0632	96.3	.0792	102.7	8.1274	101.4	17.3443	95.9
1896 .....	.0494	73.2	.0479	73.0	.0698	90.5	7.5096	93.7	15.9327	88.1
1897 .....	.0541	80.1	.0522	79.6	.0769	99.7	7.6755	95.7	22.6250	125.1
1898 .....	.0596	88.3	.0594	90.5	.0781	101.3	9.1563	114.2	21.4880	118.8
1899 .....	.0583	86.4	.0558	85.1	.0835	108.3	9.2885	115.9	22.7212	125.6
1900 .....	.0752	111.4	.0732	111.6	.0804	104.3	9.7538	121.7	20.6587	114.2
1901 .....	.0891	132.0	.0869	132.5	.0787	102.1	9.3204	116.3	20.3774	112.6
1902 .....	.1073	159.0	.1046	159.5	.0971	125.9	11.7885	147.1	21.3413	118.0
1903 .....	.0959	142.1	.0938	143.0	.0784	101.7	9.0673	113.1	21.2115	117.2

Year.	Food, etc.									
	Meat: hams, smoked.		Meat: mutton, dressed.		Meat: pork, salt, mess.		Milk: fresh.		Molasses: N. O., open kettle.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per barrel.	Relative price.	Average price per quart.	Relative price.	Average price per gallon.	Relative price.
Average, 1890-1899..	\$0.0984	100.0	\$0.0754	100.0	\$11.6332	100.0	\$0.0255	100.0	\$0.3151	100.0
1890 .....	.0995	101.1	.0933	123.7	12.1502	104.4	.0263	103.1	.3542	112.4
1891 .....	.0982	99.8	.0866	114.9	11.3029	97.2	.0267	104.7	.2788	88.5
1892 .....	.1076	109.3	.0914	121.2	11.5252	99.1	.0268	105.1	.3188	101.2
1893 .....	.1249	126.9	.0803	106.5	18.3389	157.6	.0279	109.4	.3346	106.2
1894 .....	.1019	103.6	.0605	80.2	14.1262	121.4	.0263	103.1	.3092	98.1
1895 .....	.0947	96.2	.0620	82.2	11.8255	101.7	.0253	99.2	.3083	97.8
1896 .....	.0943	95.8	.0625	82.9	8.9399	76.8	.0234	91.8	.3246	103.0
1897 .....	.0894	90.9	.0728	96.6	8.9087	76.6	.0235	92.2	.2617	83.1
1898 .....	.0807	82.0	.0739	98.0	9.8678	84.8	.0239	93.7	.3083	97.8
1899 .....	.0923	93.8	.0711	94.3	9.3462	80.3	.0253	99.2	.3525	111.9
1900 .....	.1025	104.2	.0727	96.4	12.5072	107.5	.0274	107.5	.4775	151.5
1901 .....	.1075	109.2	.0675	89.5	15.6108	134.2	.0262	102.7	.3783	120.1
1902 .....	.1211	123.1	.0738	97.9	17.9399	154.2	.0288	112.9	.3638	115.5
1903 .....	.1271	129.2	.0744	98.7	16.6514	143.1	.0288	112.9	.3546	112.5

a Average for 1893-1899.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Food, etc.									
	Rice: domestic, choice.		Salt: American.		Salt: Ashton's.		Soda: bicarbonate of, American.		Spices: nutmegs.	
	Average price per pound.	Relative price.	Average price per barrel.	Relative price.	Average price per bushel.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.0561	100.0	\$0.7044	100.0	\$2.2033	100.0	\$0.0209	100.0	\$0.4322	100.0
1890 .....	.0605	107.8	.7921	112.5	2.4646	111.9	.0275	131.6	.6317	146.2
1891 .....	.0637	113.5	.7865	111.7	2.3813	108.1	.0317	151.7	.6081	140.7
1892 .....	.0569	101.4	.7575	107.5	2.3750	107.8	.0218	104.3	.5319	123.1
1893 .....	.0459	81.8	.7019	99.6	2.3250	105.5	.0285	136.4	.4584	106.1
1894 .....	.0526	93.8	.7192	102.1	2.2375	101.6	.0268	128.2	.3996	92.5
1895 .....	.0533	95.0	.7019	99.6	2.0500	93.0	.0177	84.7	.3969	91.8
1896 .....	.0519	92.5	.6226	88.4	2.0500	93.0	.0152	72.7	.3590	83.1
1897 .....	.0542	96.6	.6613	93.9	2.0500	93.0	.0150	71.8	.3354	77.6
1898 .....	.0608	108.4	.6648	94.4	2.0500	93.0	.0129	61.7	.3140	72.7
1899 .....	.0607	108.2	.6365	90.4	2.0500	93.0	.0117	56.0	.2871	66.4
1900 .....	.0548	97.7	1.0010	142.1	2.0500	93.0	.0123	58.9	.2601	60.2
1901 .....	.0548	97.7	.8567	121.6	2.1813	99.0	.0107	51.2	.2346	54.3
1902 .....	.0559	99.6	.6360	90.3	2.2250	101.0	.0108	51.7	.2028	46.9
1903 .....	.0566	100.9	.6140	87.2	2.2479	102.0	.0129	61.7	.2877	66.6

Year.	Food, etc.									
	Spices: pepper, Singapore.		Starch: pure corn.		Sugar: 89° fair refining.		Sugar: 96° centrifugal.		Sugar: granulated.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.0749	100.0	\$0.0548	100.0	\$0.03398	100.0	\$0.03869	100.0	\$0.04727	100.0
1890 .....	.1151	153.7	.0546	99.6	.04890	143.9	.05460	141.1	.06168	130.5
1891 .....	.0873	116.6	.0600	109.5	.03459	101.8	.03910	101.1	.04714	99.7
1892 .....	.0689	92.0	.0600	109.5	.02873	84.5	.03315	85.7	.04354	92.1
1893 .....	.0595	79.4	.0600	109.5	.03203	94.3	.03680	95.1	.04836	102.3
1894 .....	.0516	68.9	.0567	103.5	.02759	81.2	.03229	83.5	.04111	87.0
1895 .....	.0497	66.4	.0554	101.1	.02894	85.2	.03253	84.1	.04155	87.9
1896 .....	.0500	66.8	.0513	93.6	.03192	93.9	.03624	93.7	.04532	95.9
1897 .....	.0664	88.7	.0500	91.2	.03077	90.6	.03564	92.1	.04497	95.1
1898 .....	.0891	119.0	.0500	91.2	.03712	109.2	.04235	109.5	.04974	105.2
1899 .....	.1117	149.1	.0500	91.2	.03922	115.4	.04422	114.3	.04924	104.2
1900 .....	.1291	172.4	.0500	91.2	.04051	119.2	.04572	118.2	.05332	112.8
1901 .....	.1292	172.5	.0470	85.8	.03521	103.6	.04040	104.4	.05048	106.8
1902 .....	.1255	167.6	.0440	80.3	.03035	89.3	.03542	91.5	.04455	94.2
1903 .....	.1289	172.1	.0507	92.5	.03228	95.0	.03720	96.1	.04641	98.2

Year.	Food, etc.									
	Tallow.		Tea: Formosa, fine.		Vegetables, fresh: onions.		Vegetables, fresh: potatoes, Burbank.		Vinegar: cider, Monarch.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per barrel.	Relative price.	Average price per bushel.	Relative price.	Average price per gallon.	Relative price.
Average, 1890-1899..	\$0.0435	100.0	\$0.2339	100.0	\$3.3995	100.0	\$0.4991	100.0	\$0.1478	100.0
1890 .....	.0460	105.7	.2733	96.3	4.3438	127.8	.5956	119.3	.1558	105.4
1891 .....	.0483	111.0	.2817	99.2	4.1250	121.3	.7730	154.9	.1800	121.8
1892 .....	.0463	106.4	.3008	106.0	3.6042	106.0	.4546	91.1	.1642	111.1
1893 .....	.0544	125.1	.2888	101.7	3.1875	93.8	.6714	134.5	.1500	101.5
1894 .....	.0480	110.3	.2783	98.0	3.2500	95.6	.6128	122.8	.1500	101.5
1895 .....	.0434	99.8	.2700	95.1	3.1146	91.6	.4326	86.7	.1450	98.1
1896 .....	.0343	78.9	.2583	91.0	1.9479	57.3	.1965	39.4	.1300	88.0
1897 .....	.0332	76.3	.2800	98.6	3.9271	115.5	.3279	65.7	.1300	88.0
1898 .....	.0356	81.8	.2958	104.2	3.2708	96.2	.5094	102.1	.1325	89.6
1899 .....	.0453	104.1	.3117	109.8	3.2238	94.8	.4172	83.6	.1400	94.7
1900 .....	.0485	111.5	.2977	104.9	2.4271	71.4	.3736	74.9	.1350	91.3
1901 .....	.0518	119.1	.2850	100.4	3.5000	103.0	.5642	113.0	.1325	89.6
1902 .....	.0629	144.6	.3015	106.2	3.6458	107.2	.5958	119.4	.1408	95.3
1903 .....	.0510	117.2	.2296	80.9	3.5675	104.9	.5249	105.2	.1300	88.0



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.									
	Bags: 2-bushel, Amoskeag.		Blankets: 11-4, 5 pounds to the pair, all wool.		Blankets: 11-4, 5 pounds to the pair, cotton warp, all wool filling.		Blankets: 11-4, 5 pounds to the pair, cotton warp, cotton and wool filling.		Boots and shoes: men's brogans, split.	
	Average price per bag.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pair.	Relative price.
Average, 1890-1899..	\$0. 1399	100. 0	\$0. 840	100. 0	\$0. 613	100. 0	\$0. 424	100. 0	\$0. 9894	100. 0
1890 .....	. 1594	113. 9	. 910	108. 3	. 650	106. 0	. 460	108. 5	1. 0500	106. 1
1891 .....	. 1563	111. 7	. 890	106. 0	. 650	106. 0	. 460	108. 5	1. 0500	106. 1
1892 .....	. 1553	110. 8	. 900	107. 1	. 640	104. 4	. 430	101. 4	1. 0375	104. 9
1893 .....	. 1494	106. 8	. 900	107. 1	. 640	104. 4	. 420	99. 1	1. 0125	102. 3
1894 .....	. 1275	91. 1	. 850	101. 2	. 550	89. 7	. 410	96. 7	. 9688	97. 9
1895 .....	. 1150	82. 2	. 750	89. 3	. 540	88. 1	. 400	94. 3	. 9813	99. 2
1896 .....	. 1281	91. 6	. 750	89. 3	. 560	91. 4	. 400	94. 3	. 9938	100. 4
1897 .....	. 1300	92. 9	. 750	89. 3	. 650	106. 0	. 420	99. 1	. 9500	96. 0
1898 .....	. 1338	95. 6	. 900	107. 1	. 625	102. 0	. 420	99. 1	. 9125	92. 2
1899 .....	. 1446	103. 4	. 800	95. 2	. 625	102. 0	. 420	99. 1	. 9375	94. 8
1900 .....	. 1575	112. 6	. 900	107. 1	. 750	122. 3	. 525	123. 8	. 9375	94. 8
1901 .....	. 1413	101. 0	. 850	101. 2	. 650	106. 0	. 475	112. 0	. 9438	95. 4
1902 .....	. 1433	102. 4	. 850	101. 2	. 650	106. 0	. 475	112. 0	. 9313	94. 1
1903 .....	. 1458	104. 2	. 925	110. 1	. 700	114. 2	. 500	117. 9	. 9250	93. 5

Year.	Cloths and clothing.									
	Boots and shoes: men's calf bal. shoes, Goodyear welt.		Boots and shoes: men's split boots.		Boots and shoes: men's vici kid shoes, Goodyear welt.		Boots and shoes: women's solid grain shoes.		Broadcloths: first quality, black, 54-inch, XXX wool.	
	Average price per pair.	Relative price.	Average price per 12 pairs.	Relative price.	Average price per pair.	Relative price.	Average price per pair.	Relative price.	Average price per yard.	Relative price.
Average, 1890-1899..	\$2. 376	100. 0	\$16. 350	100. 0	\$2. 30	100. 0	\$0. 8175	100. 0	\$1. 732	100. 0
1890 .....	2. 400	101. 0	17. 000	104. 0	2. 50	108. 7	. 8500	104. 0	1. 970	113. 7
1891 .....	2. 400	101. 0	17. 000	104. 0	2. 50	108. 7	. 8000	97. 9	1. 970	113. 7
1892 .....	2. 400	101. 0	17. 000	104. 0	2. 50	108. 7	. 7750	94. 8	1. 970	113. 7
1893 .....	2. 400	101. 0	16. 500	100. 9	2. 50	108. 7	. 7500	91. 7	1. 970	113. 7
1894 .....	2. 400	101. 0	16. 000	97. 9	2. 50	108. 7	. 7500	91. 7	1. 580	91. 2
1895 .....	2. 400	101. 0	15. 000	91. 7	2. 25	97. 8	. 8500	104. 0	1. 380	79. 7
1896 .....	2. 400	101. 0	15. 500	94. 8	2. 25	97. 8	. 8500	104. 0	1. 380	79. 7
1897 .....	2. 400	101. 0	16. 000	97. 9	2. 00	87. 0	. 8500	104. 0	1. 700	98. 2
1898 .....	2. 320	97. 6	16. 500	100. 9	2. 00	87. 0	. 8500	104. 0	1. 700	98. 2
1899 .....	2. 240	94. 3	17. 000	104. 0	2. 00	87. 0	. 8500	104. 0	1. 700	98. 2
1900 .....	2. 240	94. 3	18. 000	110. 1	2. 00	87. 0	. 9042	110. 6	1. 870	108. 0
1901 .....	2. 300	96. 8	18. 375	112. 4	2. 00	87. 0	. 8542	104. 5	1. 910	110. 3
1902 .....	2. 300	96. 8	18. 167	111. 1	2. 00	87. 0	. 8625	105. 5	1. 910	110. 3
1903 .....	2. 350	98. 9	18. 500	113. 1	2. 00	87. 0	. 8875	108. 6	1. 910	110. 3

Year.	Cloths and clothing.									
	Calico: Cochecho prints.		Carpets: Brussels, 5-frame, Bigelow.		Carpets: in-grain, 2-ply, Lowell.		Carpets: Wilton, 5-frame, Bigelow.		Cotton flannels: 2½ yards to the pound.	
	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.
Average, 1890-1899..	\$0. 0553	100. 0	\$1. 0008	100. 0	\$0. 4752	100. 0	\$1. 8432	100. 0	\$0. 0706	100. 0
1890 .....	. 0650	117. 5	1. 0320	103. 1	. 5160	108. 6	1. 9200	104. 2	. 0875	123. 9
1891 .....	. 0575	104. 0	1. 1280	112. 7	. 5520	116. 2	2. 0160	109. 4	. 0875	123. 9
1892 .....	. 0650	117. 5	1. 0320	103. 1	. 5040	106. 1	1. 9200	104. 2	. 0838	118. 7
1893 .....	. 0625	113. 0	. 9840	98. 3	. 5280	111. 1	1. 9200	104. 2	. 0725	102. 7
1894 .....	. 0550	99. 5	. 9360	93. 5	. 4680	98. 5	1. 9200	104. 2	. 0675	95. 6
1895 .....	. 0525	94. 9	. 9360	93. 5	. 4200	88. 4	1. 6800	91. 1	. 0650	92. 1
1896 .....	. 0525	94. 9	. 9360	93. 5	. 4080	85. 9	1. 6800	91. 1	. 0650	92. 1
1897 .....	. 0500	90. 4	. 9600	95. 9	. 4320	90. 9	1. 7280	93. 8	. 0575	81. 4
1898 .....	. 0450	81. 4	1. 0320	103. 1	. 4680	98. 5	1. 8240	99. 0	. 0575	81. 4
1899 .....	. 0483	87. 3	1. 0320	103. 1	. 4560	96. 0	1. 8240	99. 0	. 0619	87. 7
1900 .....	. 0525	94. 9	1. 0320	103. 1	. 4920	103. 5	1. 8720	101. 6	. 0738	104. 5
1901 .....	. 0500	90. 4	1. 0320	103. 1	. 4800	101. 0	1. 8720	101. 6	. 0640	90. 7
1902 .....	. 0500	90. 4	1. 0360	103. 5	. 4840	101. 9	1. 8840	102. 2	. 0650	92. 1
1903 .....	. 0504	91. 1	1. 0880	108. 7	. 5136	108. 1	2. 0080	108. 9	. 0735	104. 1



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.									
	Cotton flannels: 3½ yards to the pound.		Cotton thread: 6-cord, 200-yard spools, J. & P. Coats.		Cotton yarns: carded, white, mule-spun, Northern, cones, 10/1.		Cotton yarns: carded, white, mule-spun, Northern, cones, 22/1.		Denims: Amos- keag.	
	Average price per yard.	Rela- tive price.	Average price per spool.(a)	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.0575	100.0	\$0.031008	100.0	\$0.1308	100.0	\$0.1969	100.0	\$0.1044	100.0
1890 .....	.0688	119.7	.031514	101.6	b.1790	111.3	b.2208	112.1	.1175	112.5
1891 .....	.0688	119.7	.031238	100.7	b.1794	111.6	b.2244	114.0	.1144	109.6
1892 .....	.0650	113.0	.031238	100.7	b.1885	117.2	b.2300	116.8	.1144	109.6
1893 .....	.0575	100.0	.031238	100.7	.1808	112.4	.2138	108.6	.1175	112.5
1894 .....	.0550	95.7	.031238	100.7	.1523	94.7	.1796	91.2	.1100	105.4
1895 .....	.0525	91.3	.031238	100.7	.1477	91.9	.1815	92.2	.0988	94.6
1896 .....	.0550	95.7	.030871	99.6	.1483	92.2	.1844	93.7	.0988	94.6
1897 .....	.0550	95.7	.030503	98.4	.1452	90.3	.1788	90.8	.0931	89.2
1898 .....	.0463	80.5	.030503	98.4	.1456	90.5	.1792	91.0	.0897	85.9
1899 .....	.0508	88.3	.030503	98.4	.1408	87.6	.1760	89.4	.0896	85.8
1900 .....	.0567	98.6	.037240	120.1	.1850	115.0	.2283	115.9	.1073	102.8
1901 .....	.0575	100.0	.037240	120.1	.1585	98.6	.1927	97.9	.1046	100.2
1902 .....	.0575	100.0	.037240	120.1	.1538	95.6	.1819	92.4	.1050	100.6
1903 .....	.0629	109.4	.037240	120.1	.1869	116.2	.2156	109.5	.1127	108.0

Year.	Cloths and clothing.									
	Drillings: brown, Pep- perell.		Drillings: 30- inch, Stark A.		Flannels: white, 4-4, Bal- lard Vale No. 3.		Ginghams: Amoskeag.		Ginghams: Lancaster.	
	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.0572	100.0	\$0.0521	100.0	\$0.3768	100.0	\$0.0533	100.0	\$0.0573	100.0
1890 .....	.0683	119.4	.0640	122.8	.4400	116.8	.0625	117.3	.0692	120.8
1891 .....	.0652	114.0	.0600	115.2	.4400	116.8	.0650	122.0	.0700	122.2
1892 .....	.0582	101.7	.0535	102.7	.4367	115.9	.0650	122.0	.0700	122.2
1893 .....	.0590	103.1	.0563	108.1	.4125	109.5	.0631	118.4	.0638	111.3
1894 .....	.0559	97.7	.0502	96.4	.3546	94.1	.0485	91.0	.0504	88.0
1895 .....	.0529	92.5	.0489	93.9	.3080	81.7	.0466	87.4	.0496	86.6
1896 .....	.0573	100.2	.0522	100.2	.3217	85.4	.0472	88.6	.0500	87.3
1897 .....	.0525	91.8	.0463	88.9	.3113	82.6	.0438	82.2	.0494	86.2
1898 .....	.0513	89.7	.0437	83.9	.3685	97.8	.0431	80.9	.0488	85.2
1899 .....	.0510	89.2	.0457	87.7	.3750	99.5	.0477	89.5	.0515	89.9
1900 .....	.0606	105.9	.0542	104.0	.4096	108.7	.0515	96.6	.0550	96.0
1901 .....	.0585	102.3	.0532	102.1	.3800	100.8	.0490	91.9	.0531	92.7
1902 .....	.0575	100.5	.0539	103.5	.3986	105.8	.0523	98.1	.0575	100.3
1903 .....	.0619	108.2	.0581	111.5	.4306	114.3	.0550	103.2	.0575	100.3

Year.	Cloths and clothing.									
	Horse blankets: 6 pounds each, all wool.		Hosiery: men's cotton half hose, 20 to 22 oz.		Hosiery: men's cotton half hose, 84 needles.		Hosiery: wom- en's combed Egyptian, cotton.		Hosiery: wom- en's cotton hose, 26 to 28 oz.	
	Average price per pound.	Rela- tive price.	Average price per 12 prs.(c)	Rela- tive price.	Average price per 12 pairs.	Rela- tive price.	Average price per 12 pairs.	Rela- tive price.	Average price per 12 prs.(c)	Rela- tive price.
Average, 1890-1899..	\$0.573	100.0	\$0.9555	100.0	\$0.7845	100.0	a \$1.850	100.0	\$0.9310	100.0
1890 .....	.625	109.1	1.2740	133.3	e.9750	124.3	.....	.....	1.2250	131.6
1891 .....	.600	104.7	1.1760	123.1	e.9750	124.3	.....	.....	1.1270	121.1
1892 .....	.625	109.1	1.0780	112.8	e.9700	123.6	.....	.....	1.0780	115.8
1893 .....	.600	104.7	1.0535	110.3	e.8750	111.5	1.900	102.7	1.0535	113.2
1894 .....	.550	96.0	.9800	102.6	e.7250	92.4	1.900	102.7	.9800	105.3
1895 .....	.530	92.5	.9065	94.9	e.7000	89.2	1.875	101.4	.8575	92.1
1896 .....	.520	90.8	.8330	87.2	e.7000	89.2	1.875	101.4	.7840	84.2
1897 .....	.570	99.5	.7840	82.1	e.6500	82.9	1.850	100.0	.7595	81.6
1898 .....	.570	99.5	.7350	76.9	e.6500	82.9	1.800	97.3	.7105	76.3
1899 .....	.540	94.2	.7350	76.9	e.6250	79.7	1.750	94.6	.7350	78.9
1900 .....	.680	118.7	.7840	82.1	e.6500	82.9	1.900	102.7	.7595	81.6
1901 .....	.630	109.9	.6860	71.8	e.7250	92.4	2.000	108.1	.6615	71.1
1902 .....	.630	109.9	.7350	76.9	.6667	85.0	1.850	100.0	.7350	78.9
1903 .....	.675	117.8	.7840	82.1	.7063	90.0	1.875	101.4	.8085	86.8

a Freight paid.

b Records destroyed.

Price estimated by person who furnished data for later years.

c September price.

d Average for 1893-1899.

e January price.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890–1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.									
	Leather: har- ness, oak, coun- try middles.		Leather: sole, hemlock, Bue- nos Ayres.		Leather: sole, oak.		Leather: wax calf, 30 to 40 lbs. to the dozen.		Linen shoe thread: 10s, Barbour.	
	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per sq. foot.	Rela- tive price.	Average price per pound.	Rela- tive price.
Average, 1890–1899..	\$0. 2590	100. 0	\$0. 1939	100. 0	\$0. 3363	100. 0	\$0. 6545	100. 0	\$0. 8748	100. 0
1890 .....	. 2571	99. 3	. 1921	99. 1	. 3771	112. 1	. 6000	91. 7	. 8910	101. 9
1891 .....	. 2579	99. 6	. 1858	95. 8	. 3679	109. 4	. 6469	98. 8	. 8910	101. 9
1892 .....	. 2367	91. 4	. 1727	89. 1	. 3421	101. 7	. 6929	105. 9	. 8910	101. 9
1893 .....	. 2400	92. 7	. 1796	92. 6	. 3483	103. 6	. 6450	98. 5	. 8993	102. 8
1894 .....	. 2275	87. 8	. 1715	88. 4	. 3279	97. 5	. 6042	92. 3	. 9182	105. 0
1895 .....	. 2888	111. 5	. 2073	106. 9	. 3421	101. 7	. 7333	112. 0	. 8514	97. 3
1896 .....	. 2554	98. 6	. 1881	97. 0	. 2925	87. 0	. 6433	98. 3	. 8514	97. 3
1897 .....	. 2433	93. 9	. 2033	104. 8	. 3079	91. 6	. 6156	94. 1	. 8514	97. 3
1898 .....	. 2825	109. 1	. 2129	109. 8	. 3213	95. 5	. 6760	103. 3	. 8514	97. 3
1899 .....	. 3004	116. 0	. 2254	116. 2	. 3358	99. 9	. 6875	105. 0	. 8514	97. 3
1900 .....	. 3025	116. 8	. 2490	128. 4	. 3608	107. 3	. 6563	100. 3	. 8877	101. 5
1901 .....	. 2971	114. 7	. 2475	127. 6	. 3525	104. 8	. 6281	96. 0	. 8910	101. 9
1902 .....	<sup>a</sup> . 3325	<sup>a</sup> 114. 7	. 2367	122. 1	. 3800	113. 0	. 6604	100. 9	. 8910	101. 9
1903 .....	<sup>a</sup> . 3313	<sup>a</sup> 114. 3	. 2267	116. 9	. 3742	111. 3	. 6900	105. 4	. 8460	96. 7

Year.	Cloths and clothing.									
	Linen thread: 3-cord, 200-yard spools, Barbour.		Overcoatings: beaver, Mos- cow, all wool.		Overcoatings: chinchilla, all wool.		Overcoatings: chinchilla, cotton warp.		Overcoatings: covert cloth, light weight.	
	Average price per dozen spools.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890–1899..	\$0. 8522	100. 0	\$2. 0817	100. 0	\$2. 1419	100. 0	\$0. 4883	100. 0	\$2. 3286	100. 0
1890 .....	. 8910	104. 6	<sup>b</sup> 2. 4296	116. 7	<sup>b</sup> 2. 4296	113. 4	. 5325	109. 1	2. 4616	105. 7
1891 .....	. 7945	93. 2	<sup>b</sup> 2. 4296	116. 7	<sup>b</sup> 2. 4296	113. 4	. 5258	107. 7	2. 4616	105. 7
1892 .....	. 8019	94. 1	<sup>b</sup> 2. 4296	116. 7	<sup>b</sup> 2. 4296	113. 4	. 5329	109. 1	2. 4616	105. 7
1893 .....	. 8308	97. 5	2. 3250	111. 7	2. 3250	108. 5	. 5367	109. 9	2. 4616	105. 7
1894 .....	. 8514	99. 9	1. 9879	95. 5	1. 9879	92. 8	. 4733	96. 9	2. 4254	104. 2
1895 .....	. 8514	99. 9	1. 7670	84. 9	1. 8774	87. 7	. 4508	92. 3	2. 3259	99. 9
1896 .....	. 8514	99. 9	1. 7670	84. 9	1. 8774	87. 7	. 4354	89. 2	2. 0363	87. 4
1897 .....	. 8679	101. 8	1. 7670	84. 9	1. 8774	87. 7	. 4575	93. 7	1. 9458	83. 6
1898 .....	. 8910	104. 6	1. 8600	89. 4	2. 0925	97. 7	. 4800	98. 3	2. 2625	97. 2
1899 .....	. 8910	104. 6	2. 0538	98. 7	2. 0925	97. 7	. 4583	93. 9	2. 4435	104. 9
1900 .....	. 8910	104. 6	2. 4994	120. 1	2. 4994	116. 7	. 4892	100. 2	2. 3621	101. 4
1901 .....	. 8910	104. 6	2. 2088	106. 1	2. 0925	97. 7	. 4433	90. 8	2. 2625	97. 2
1902 .....	. 8910	104. 6	2. 2088	106. 1	2. 0925	97. 7	. 4508	92. 3	2. 2625	97. 2
1903 .....	. 8370	98. 2	2. 4413	117. 3	2. 2088	103. 1	. 4533	92. 8	2. 1899	94. 0

Year.	Cloths and clothing.									
	Overcoatings: kersey, stand- ard, 27 to 28 oz.		Print cloths: 28-inch, 64x64.		Shawls: stand- ard, all wool, 72x144 in., 42-oz.		Sheetings: bleached, 10–4, Atlantic.		Sheetings: bleached, 10–4, Pepperell.	
	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price each.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890–1899..	<sup>c</sup> \$1. 2472	100. 0	\$0. 02838	100. 0	\$4. 5787	100. 0	\$0. 1836	100. 0	\$0. 1884	100. 0
1890 .....			. 03340	117. 7	4. 9000	107. 0	. 2241	122. 1	. 2190	116. 2
1891 .....			. 02938	103. 5	4. 9000	107. 0	. 2138	116. 4	. 2008	106. 6
1892 .....			. 03386	119. 3	4. 9000	107. 0	. 1996	108. 7	. 1900	100. 8
1893 .....			. 03251	114. 6	4. 9000	107. 0	. 2052	111. 8	. 1946	103. 3
1894 .....			. 02748	96. 8	4. 9000	107. 0	. 1741	94. 8	. 1742	92. 5
1895 .....			. 02864	100. 9	4. 9000	107. 0	. 1722	93. 8	. 1785	94. 7
1896 .....			. 02581	90. 9	4. 0800	89. 1	. 1700	92. 6	. 1792	95. 1
1897 .....	1. 1833	94. 9	. 02485	87. 6	4. 0970	89. 5	. 1604	87. 4	. 1738	92. 3
1898 .....	1. 3000	104. 2	. 02059	72. 6	4. 1300	90. 2	. 1527	83. 2	. 1721	91. 3
1899 .....	1. 2583	100. 9	. 02732	96. 3	4. 0800	89. 1	. 1641	89. 4	. 2021	107. 3
1900 .....	1. 5750	126. 3	. 03083	108. 6	4. 9000	107. 0	. 2043	111. 3	. 2292	121. 7
1901 .....	1. 5000	120. 3	. 02819	99. 3	4. 9000	107. 0	. 1853	100. 9	. 2117	112. 4
1902 .....	1. 5000	120. 3	. 03090	108. 9	4. 9000	107. 0	. 1917	104. 4	. 2100	111. 5
1903 .....	1. 5750	126. 3	. 032156	113. 3	4. 9000	107. 0	. 2124	115. 7	. 2275	120. 8

<sup>a</sup>Leather: harness, oak, packers' hides, heavy, No. 1. For method of computing relative price see pages 241 and 242. Average price for 1901, \$0.3325.  
<sup>b</sup>Records destroyed. Price estimated by person who furnished data for later years.  
<sup>c</sup>Average for 1897–1899.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.									
	Sheetings: bleached, 10-4, Wamsutta S.T.		Sheetings: brown, 4-4, Atlantic A.		Sheetings: brown, 4-4, Indian Head.		Sheetings: brown, 4-4, Pepperell R.		Sheetings: brown, 4-4, Stark A. A.	
	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.2949	100.0	\$0.0553	100.0	\$0.0626	100.0	\$0.0551	100.0	\$0.0525	100.0
1890 .....	.3126	106.0	.0669	121.0	.0725	115.8	.0640	116.2	.0660	125.7
1891 .....	.3162	107.2	.0653	118.1	.0727	116.1	.0597	108.3	.0594	113.1
1892 .....	.2944	99.8	.0590	106.7	.0648	103.5	.0569	103.3	.0545	103.8
1893 .....	.3056	103.6	.0619	111.9	.0679	108.5	.0583	105.8	.0574	109.3
1894 .....	.2756	93.5	.0549	99.3	.0598	95.5	.0531	96.4	.0521	99.2
1895 .....	.2719	92.2	.0520	94.0	.0585	93.5	.0529	96.0	.0513	97.7
1896 .....	.2925	99.2	.0535	96.7	.0622	99.4	.0558	101.3	.0511	97.3
1897 .....	.2925	99.2	.0490	88.6	.0588	93.9	.0525	95.3	.0452	86.1
1898 .....	.2925	99.2	.0443	80.1	.0540	86.3	.0475	86.2	.0424	80.8
1899 .....	.2951	100.1	.0466	84.3	.0544	86.9	.0504	91.5	.0451	85.9
1900 .....	.3075	104.3	.0555	100.4	.0623	99.5	.0592	107.4	.0508	96.8
1901 .....	.2925	99.2	.0542	98.0	.0631	100.8	.0592	107.4	.0494	94.1
1902 .....	.2925	99.2	.0549	99.3	.0625	99.8	.0569	103.3	<sup>a</sup> .0566	<sup>a</sup> 92.6
1903 .....	.3038	103.0	.0636	115.0	.0681	108.8	.0599	108.7	<sup>a</sup> .0623	<sup>a</sup> 101.9

Year.	Cloths and clothing.									
	Shirtings: bleached, 4-4, Fruit of the Loom.		Shirtings: bleached, 4-4, Hope.		Shirtings: bleached, 4-4, Lonsdale.		Shirtings: bleached, 4-4, New York Mills.		Shirtings: bleached, 4-4, Wamsutta <sup>&lt;O&gt;</sup> XX.	
	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890-1899..	\$0.0728	100.0	\$0.0630	100.0	\$0.0727	100.0	\$0.0876	100.0	\$0.0948	100.0
1890 .....	.0845	116.1	.0726	115.2	.0845	116.2	.0968	110.5	.1011	106.6
1891 .....	.0799	109.8	.0703	111.6	.0822	113.1	.0965	110.2	.1009	106.4
1892 .....	.0808	111.0	.0663	105.2	.0812	111.7	.0931	106.3	.0973	102.6
1893 .....	.0832	114.3	.0713	113.2	.0832	114.4	.0925	105.6	.0981	103.5
1894 .....	.0727	99.9	.0620	98.4	.0727	100.0	.0885	101.0	.0950	100.2
1895 .....	.0700	96.2	.0608	96.5	.0697	95.9	.0851	97.1	.0969	102.2
1896 .....	.0696	95.6	.0620	98.4	.0685	94.2	.0885	101.0	.0951	100.3
1897 .....	.0641	88.0	.0574	91.1	.0633	87.1	.0836	95.4	.0935	98.6
1898 .....	.0584	80.2	.0518	82.2	.0595	81.8	.0784	89.5	.0807	85.1
1899 .....	.0644	88.5	.0551	87.5	.0626	86.1	.0725	82.8	.0892	94.1
1900 .....	.0753	103.4	.0671	106.5	.0731	100.6	.0786	89.7	.0965	101.8
1901 .....	.0750	103.0	.0699	111.0	.0738	101.5	.0760	86.8	.0875	92.3
1902 .....	.0756	103.8	.0676	107.3	.0741	101.9	.0766	87.4	.0885	93.4
1903 .....	.0767	105.4	.0675	107.1	.0755	103.9	.0850	97.0	.0974	102.7

Year.	Cloths and clothing.									
	Silk: raw, Italian, clas- sical.		Silk: raw, Ja- pan, filatures.		Suits: clay worsted diago- nal, 12-oz.		Suits: clay worsted diago- nal, 16-oz.		Suits: indigo blue, all wool, 14-oz., Middlesex.	
	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.	Average price per yard.	Rela- tive price.
Average, 1890-1899..	\$4.2558	100.0	\$4.0187	100.0	<sup>b</sup> \$0.8236	100.0	<sup>b</sup> \$1.0068	100.0	\$1.3230	100.0
1890 .....	5.2238	122.7	5.2429	130.5	.....	.....	.....	.....	1.5470	116.9
1891 .....	4.1865	98.4	4.0110	99.8	.....	.....	.....	.....	1.5470	116.9
1892 .....	4.4826	105.3	4.3266	107.7	.....	.....	.....	.....	1.5470	116.9
1893 .....	5.0289	118.2	4.5409	113.0	.....	.....	.....	.....	1.5084	114.0
1894 .....	3.6816	86.5	3.3627	83.7	.....	.....	.....	.....	1.4697	111.1
1895 .....	4.0373	94.9	3.7855	94.2	.7621	92.5	.9445	93.8	1.1523	87.1
1896 .....	3.6293	85.3	3.4072	84.8	.7337	89.1	.8819	87.6	1.1375	86.0
1897 .....	3.6404	85.5	3.4637	86.2	.7595	92.2	.9392	93.3	1.0465	79.1
1898 .....	3.8768	91.1	3.6376	90.5	.9165	111.3	1.1216	111.4	1.1375	86.0
1899 .....	4.7706	112.1	4.4085	109.7	.9461	114.9	1.1468	113.9	1.1375	86.0
1900 .....	4.5128	106.0	4.1690	103.7	1.0819	131.4	1.3463	133.7	1.1375	86.0
1901 .....	3.8466	90.4	3.5132	87.4	.9113	110.6	1.1175	111.0	1.1849	89.6
1902 .....	4.1085	96.5	3.8224	95.1	.9131	110.9	1.0931	108.6	1.3119	99.2
1903 .....	4.5241	106.3	4.1346	102.9	.9488	115.2	1.1288	112.1	1.4400	108.8

<sup>a</sup>Sheetings: brown, 4-4, Massachusetts Mills, Flying Horse brand. For method of computing rela-  
tive price see pages 241 and 242. Average price for 1901, \$0.0575.

<sup>b</sup>Average for 1895-1899.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.									
	Suits: indigo blue, all wool, 16-oz.		Suits: serge, Washington Mills 6700.		Tickings: Amoskeag A. C. A.		Trouserings: fancy worsted, 22 to 23-oz.		Underwear: white, all wool, etc.	
	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price, 12 garments.	Relative price.
Average, 1890-1899..	\$1. 9154	100. 0	<sup>a</sup> \$0. 7526	100. 0	\$0. 1061	100. 0	<sup>a</sup> \$1. 9456	100. 0	\$23. 31	100. 0
1890 .....	<sup>b</sup> 2. 0925	109. 2	-----	-----	. 1200	113. 1	-----	-----	24. 75	106. 2
1891 .....	<sup>b</sup> 2. 0925	109. 2	-----	-----	. 1175	110. 7	-----	-----	25. 65	110. 0
1892 .....	<sup>b</sup> 2. 0925	109. 2	. 9100	120. 9	. 1150	108. 4	2. 0734	106. 6	25. 65	110. 0
1893 .....	2. 0925	109. 2	. 9100	120. 9	. 1181	111. 3	2. 0734	106. 6	25. 65	110. 0
1894 .....	1. 7670	92. 3	. 6825	90. 7	. 1084	102. 2	1. 9238	98. 9	21. 60	92. 7
1895 .....	1. 5903	83. 0	. 6825	90. 7	. 1006	94. 8	1. 7100	87. 9	21. 60	92. 7
1896 .....	1. 7228	89. 9	. 6143	81. 6	. 1019	96. 0	1. 7955	92. 3	21. 60	92. 7
1897 .....	1. 6740	87. 4	. 6598	87. 7	. 0975	91. 9	1. 7955	92. 3	21. 60	92. 7
1898 .....	1. 9763	103. 2	. 7508	99. 8	. 0894	84. 3	2. 1197	108. 9	21. 60	92. 7
1899 .....	2. 0538	107. 2	. 8106	107. 7	. 0923	87. 0	2. 0734	106. 6	23. 40	100. 4
1900 .....	2. 2669	118. 4	. 8100	107. 6	. 1084	102. 2	2. 2871	117. 6	23. 40	100. 4
1901 .....	2. 0925	109. 2	. 8025	106. 6	. 1013	95. 5	1. 9879	102. 2	23. 40	100. 4
1902 .....	2. 0925	109. 2	. 7913	105. 1	. 1050	99. 0	1. 9800	101. 8	23. 40	100. 4
1903 .....	2. 1576	112. 6	. 7556	100. 4	. 1104	104. 1	<sup>c</sup> 2. 0925	<sup>c</sup> 104. 6	23. 40	100. 4

Year.	Cloths and clothing.									
	Underwear: white merino, 52% wool, etc.		Women's dress goods: alpaca, cotton warp, 22-inch, Hamilton.		Women's dress goods: cashmere, all wool, Atlantic J.		Women's dress goods: cashmere, cotton warp, Atl. F.		Women's dress goods: cashmere, cot. warp, 22-in. Hamilton.	
	Average price, 12 garments.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per yard.	Relative price.
Average, 1890-1899..	\$15. 57	100. 0	\$0. 0680	100. 0	\$0. 2905	100. 0	\$0. 1520	100. 0	\$0. 0758	100. 0
1890 .....	16. 65	106. 9	. 0735	108. 1	. 3479	119. 8	. 1813	119. 3	. 0833	109. 9
1891 .....	17. 55	112. 7	. 0735	108. 1	. 3663	126. 1	. 1813	119. 3	. 0833	109. 9
1892 .....	17. 55	112. 7	. 0723	106. 3	. 3724	128. 2	. 1789	117. 7	. 0821	108. 3
1893 .....	17. 55	112. 7	. 0711	104. 6	. 3247	111. 8	. 1495	98. 4	. 0809	106. 7
1894 .....	14. 85	95. 4	. 0686	100. 9	. 2450	84. 3	. 1348	88. 7	. 0760	100. 3
1895 .....	14. 40	92. 5	. 0637	93. 7	. 2352	81. 0	. 1274	83. 8	. 0735	97. 0
1896 .....	14. 40	92. 5	. 0637	93. 7	. 1960	67. 5	. 1270	83. 6	. 0711	93. 8
1897 .....	14. 40	92. 5	. 0637	93. 7	. 2389	82. 2	. 1372	90. 3	. 0686	90. 5
1898 .....	14. 85	95. 4	. 0637	93. 7	. 2573	88. 6	. 1434	94. 3	. 0686	90. 5
1899 .....	13. 50	86. 7	. 0657	96. 6	. 3208	110. 4	. 1593	104. 8	. 0706	93. 1
1900 .....	14. 85	95. 4	. 0711	104. 6	. 3459	119. 1	. 1642	108. 0	. 0760	100. 3
1901 .....	14. 85	95. 4	. 0711	104. 6	. 3234	111. 3	. 1585	104. 3	. 0760	100. 3
1902 .....	14. 85	95. 4	. 0705	103. 7	. 3234	111. 3	. 1642	108. 0	. 0754	99. 5
1903 .....	<sup>d</sup> 16. 20	<sup>d</sup> 95. 4	. 0690	101. 5	. 3320	114. 3	. 1679	110. 5	. 0741	97. 8

Year.	Cloths and clothing.									
	Women's dress goods: cashmere, cot. warp, 27-in. Hamilton.		Women's dress goods: Franklin sackings, 6-4.		Wool: Ohio, fine fleece (X and XX grade), scoured.		Wool: Ohio, medium fleece ( <sup>1</sup> / <sub>4</sub> and <sup>3</sup> / <sub>8</sub> grade), scoured.		Worsted yarns: 2-40s, Australian fine.	
	Average price per yard.	Relative price.	Average price per yard.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0. 0883	100. 0	\$0. 5151	100. 0	\$0. 5526	100. 0	\$0. 4564	100. 0	\$1. 0183	100. 0
1890 .....	. 0980	111. 0	. 5938	115. 3	. 7156	129. 5	. 6143	134. 6	1. 2263	120. 4
1891 .....	. 0980	111. 0	. 6175	119. 9	. 6857	124. 1	. 5820	127. 5	1. 2354	121. 3
1892 .....	. 0968	109. 6	. 6175	119. 9	. 6119	110. 7	. 5276	115. 6	1. 2175	119. 6
1893 .....	. 0937	106. 1	. 6056	117. 6	. 5639	102. 0	. 4620	101. 2	1. 1342	111. 4
1894 .....	. 0907	102. 7	. 4988	96. 8	. 4448	80. 5	. 3542	77. 6	. 9292	91. 3
1895 .....	. 0846	95. 8	. 4342	84. 3	. 3768	68. 2	. 3280	71. 9	. 7425	72. 9
1896 .....	. 0821	93. 0	. 4156	80. 7	. 3940	71. 3	. 3186	69. 8	. 7250	71. 2
1897 .....	. 0784	88. 8	. 4235	82. 2	. 4955	89. 7	. 3999	87. 6	. 8517	83. 6
1898 .....	. 0784	88. 8	. 4552	88. 4	. 6150	111. 3	. 4805	105. 3	1. 0308	101. 2
1899 .....	. 0821	93. 0	. 4889	94. 9	. 6232	112. 8	. 4966	108. 8	1. 0908	107. 1
1900 .....	. 0882	99. 9	. 6096	118. 3	. 6594	119. 3	. 5296	116. 0	1. 2050	118. 3
1901 .....	. 0907	102. 7	. 5383	104. 5	. 5453	98. 7	. 4315	94. 5	1. 0404	102. 2
1902 .....	. 0901	102. 0	. 5581	108. 3	. 5770	104. 4	. 4436	97. 2	1. 1229	110. 3
1903 .....	. 0894	101. 2	. 5898	114. 5	. 6546	118. 5	. 4658	102. 1	1. 1771	115. 6

<sup>a</sup> Average for 1892-1899.

<sup>b</sup> Records destroyed. Price estimated by person who furnished data for later years.

<sup>c</sup> 21 to 22 ounce. For method of computing relative price see pages 241 and 242.

<sup>d</sup> 60 per cent wool, etc. For method of computing relative price see page 242.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.		Fuel and lighting.							
	Worsted yarns: 2-40s, XXX, white, in skeins.		Candles: adamantine, 6s, 14-ounce.		Coal: anthracite, broken.		Coal: anthracite, chestnut.		Coal: anthracite, egg.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.
Average, 1890-1899..	\$1.0071	100.0	\$0.0782	100.0	\$3.3669	100.0	\$3.5953	100.0	\$3.5936	100.0
1890 .....	1.2500	124.1	.0800	102.3	3.4858	103.5	3.3533	93.3	3.6142	100.6
1891 .....	1.2625	125.4	.0800	102.3	3.4433	102.3	3.4758	96.7	3.7508	104.4
1892 .....	1.1563	114.8	.0800	102.3	3.6152	107.4	3.9443	109.7	3.9803	110.8
1893 .....	1.0833	107.6	.0883	112.9	3.5628	105.8	4.1673	115.9	3.8520	107.2
1894 .....	.9188	91.2	.0867	110.9	3.4172	101.5	3.5416	98.5	3.3903	94.3
1895 .....	.7563	75.1	.0850	108.7	3.2833	97.5	2.9793	82.9	3.0296	84.3
1896 .....	.7500	74.5	.0850	108.7	3.2691	97.1	3.5561	98.9	3.5490	98.8
1897 .....	.8188	81.3	.0745	95.3	3.2465	96.4	3.7366	103.9	3.7986	105.7
1898 .....	1.0042	99.7	.0613	78.4	3.2108	95.4	3.5525	98.8	3.5993	100.2
1899 .....	1.0708	106.3	.0613	78.4	3.1350	93.1	3.6458	101.4	3.3714	93.8
1900 .....	1.1938	118.5	.1059	135.4	3.2706	97.1	3.9166	108.9	3.5843	99.7
1901 .....	1.0283	102.1	.1100	140.7	3.5508	105.5	4.3270	120.4	4.0565	112.9
1902 .....	<sup>a</sup> 1.1392	<sup>a</sup> 113.1	.1100	140.7	3.7186	110.4	4.4597	124.0	4.3673	121.5
1903 .....	<sup>a</sup> 1.2125	<sup>a</sup> 120.4	.0996	127.4	4.2496	126.2	4.8251	134.2	4.8251	134.3

Year.	Fuel and lighting.									
	Coal: anthracite, stove.		Coal: bituminous, Georges Creek (at mine).		Coal: bit. Georges Creek (f. o. b. N. Y. Harbor).		Coal: bit. Pittsburgh (Youghiogheny).		Coke: Connellsville, furnace.	
	Average price per ton.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.	Average price per bushel.	Relative price.	Average price per ton.	Relative price.
Average, 1890-1899..	\$3.7949	100.0	\$0.8887	100.0	\$2.7429	100.0	\$0.0643	100.0	\$1.6983	100.0
1890 .....	3.7108	97.8	.8625	97.1	2.9875	108.9	.0664	103.3	2.0833	122.7
1891 .....	3.8542	101.6	.9500	106.9	3.0313	110.5	.0789	122.7	1.8750	110.4
1892 .....	4.1532	109.4	.9000	101.3	2.9313	106.9	.0749	116.5	1.8083	106.5
1893 .....	4.1931	110.5	.9208	103.6	2.9500	107.6	.0758	117.9	1.4792	87.1
1894 .....	3.6003	94.9	.8208	92.4	2.7375	99.8	.0634	98.6	1.0583	62.3
1895 .....	3.1264	82.4	.7750	87.2	2.8125	102.5	.0600	93.3	1.3250	78.0
1896 .....	3.7942	100.0	.9000	101.3	2.6625	97.1	.0573	89.1	1.8750	110.4
1897 .....	4.0146	105.8	.8333	93.8	2.4417	89.0	.0570	88.6	1.6167	95.2
1898 .....	3.7978	100.1	.9125	102.7	2.1750	79.3	.0565	87.9	1.6771	98.8
1899 .....	3.7047	97.6	1.0125	113.9	2.7000	98.4	.0531	82.6	2.1854	128.7
1900 .....	3.9451	104.0	1.2000	135.0	2.9083	106.0	.0752	117.0	2.6458	155.8
1901 .....	4.3224	113.9	1.3375	150.5	2.9250	106.6	.0752	117.0	1.9625	115.6
1902 .....	4.4627	117.6	2.1250	239.1	4.0583	148.0	.0787	122.4	2.6875	158.2
1903 .....	4.8245	127.1	2.3958	269.6	4.4375	161.8	.0925	143.9	2.9125	171.5

Year.	Fuel and lighting.								Metals and implements.	
	Matches: parlor, domestic.		Petroleum: crude.		Petroleum: refined, for export.		Petroleum: refined, 150° test.		Augers: extra, ¾-inch.	
	Average price per gross of boxes (200s).	Relative price.	Average price per barrel.	Relative price.	Average price per gallon.	Relative price.	Average price per gallon.	Relative price.	Average price each.	Relative price.
Average, 1890-1899..	\$1.7563	100.0	\$0.9102	100.0	\$0.0649	100.0	\$0.0890	100.0	\$0.1608	100.0
1890 .....	1.9583	111.5	.8680	95.4	.0733	112.9	.0995	111.8	.1900	118.2
1891 .....	1.7500	99.6	.6697	73.6	.0685	105.5	.0879	98.8	.1900	118.2
1892 .....	1.7500	99.6	.5564	61.1	.0609	93.8	.0794	89.2	.1900	118.2
1893 .....	1.7500	99.6	.6399	70.3	.0522	80.4	.0725	81.5	.1800	111.9
1894 .....	1.6667	94.9	.8389	92.2	.0515	79.4	.0725	81.5	.1542	95.9
1895 .....	1.6875	96.1	1.3581	149.2	.0711	109.6	.0922	103.6	.1333	82.9
1896 .....	1.7500	99.6	1.1789	129.5	.0702	108.2	.1039	116.7	.1394	86.7
1897 .....	1.7500	99.6	.7869	86.5	.0597	92.0	.0900	101.1	.1425	88.6
1898 .....	1.7500	99.6	.9118	100.2	.0628	96.8	.0909	102.1	.1425	88.6
1899 .....	1.7500	99.6	1.2934	142.1	.0791	121.9	.1015	114.0	.1465	91.1
1900 .....	1.7500	99.6	1.3521	148.5	.0854	131.6	.1188	133.5	.2000	124.4
1901 .....	1.7500	99.6	1.2095	132.9	.0749	115.4	.1096	123.1	.1700	105.7
1902 .....	1.5833	90.1	1.2369	135.9	.0734	113.1	.1108	124.5	.1800	111.9
1903 .....	1.5000	85.4	1.5886	174.5	.0860	132.5	.1363	153.1	.2310	143.7

<sup>a</sup> Designated as XXXX.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Metals and implements.									
	Axes: M. C. O., Yankee.		Bar iron: best refined, from mill (Pittsburg market).		Bar iron: best refined, from store (Philadel- phia market).		Barb wire: galvanized.		Butts: loose joint, cast, 3 x 3 inch.	
	Average price each.	Rela- tive price.	Average price per lb.	Rela- tive price.	Average price per lb.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per pair.	Rela- tive price.
Average, 1890-1899..	\$0.4693	100.0	\$0.0145	100.0	\$0.0164	100.0	\$2.5261	100.0	\$0.0316	100.0
1890 .....	.5650	120.4	.0184	126.9	.0205	125.0	3.5665	141.2	.0353	111.7
1891 .....	.5550	118.3	.0171	117.9	.0190	115.9	3.2189	127.4	.0353	111.7
1892 .....	.5000	106.5	.0164	113.1	.0187	114.0	2.7662	109.5	.0306	96.8
1893 .....	.5000	106.5	.0150	103.4	.0170	103.7	2.5188	99.7	.0311	98.4
1894 .....	.4733	100.9	.0120	82.8	.0134	81.7	2.1750	86.1	.0303	95.9
1895 .....	.4600	98.0	.0125	86.2	.0144	87.8	2.2458	88.9	.0317	100.3
1896 .....	.4150	88.4	.0122	84.1	.0140	85.4	1.9625	77.7	.0329	104.1
1897 .....	.3938	83.9	.0110	75.9	.0131	79.9	1.8000	71.3	.0306	96.8
1898 .....	.3750	79.9	.0107	73.8	.0128	78.0	1.8375	72.7	.0292	92.4
1899 .....	.4555	97.1	.0195	134.5	.0207	126.2	3.1696	125.5	.0292	92.4
1900 .....	.4831	102.9	.0215	148.3	.0196	119.5	3.3942	134.4	.0400	126.6
1901 .....	.4166	88.8	.0180	124.1	.0184	112.2	3.0375	120.2	.0369	116.8
1902 .....	.4833	103.0	.0194	133.8	.0213	129.9	2.9542	116.9	.0400	126.6
1903 .....	.5050	107.6	.0177	122.1	.0200	122.0	2.7375	108.4	.0400	126.6

Year.	Metals and implements.									
	Chisels: extra, socket firmer, 1-inch.		Copper: ingot, lake.		Copper: sheet, hot-rolled (base sizes).		Copper wire: bare.		Doorknobs: steel, bronze plated.	
	Average price each.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per pair.	Rela- tive price.
Average, 1890-1899..	\$0.1894	100.0	\$0.1234	100.0	\$0.1659	100.0	\$0.1464	100.0	\$0.1697	100.0
1890 .....	.2100	110.9	.1575	127.6	.2275	137.1	.1875	128.1	.1660	97.8
1891 .....	.2100	110.9	.1305	105.8	.1900	114.5	.1650	112.7	.1660	97.8
1892 .....	.2100	110.9	.1154	93.5	.1600	96.4	.1438	98.2	.1660	97.8
1893 .....	.1933	102.1	.1093	88.6	.1500	90.4	.1350	92.2	.1660	97.8
1894 .....	.1733	91.5	.0948	76.8	.1425	85.9	.1156	79.0	.1660	97.8
1895 .....	.1710	90.3	.1075	87.1	.1425	85.9	.1238	84.6	.1953	115.1
1896 .....	.1793	94.7	.1097	88.9	.1425	85.9	.1356	92.6	.1733	102.1
1897 .....	.1710	90.3	.1132	91.7	.1463	88.2	.1375	93.9	.1660	97.8
1898 .....	.1720	90.8	.1194	96.8	.1400	84.4	.1375	93.9	.1660	97.8
1899 .....	.2038	107.6	.1767	143.2	.2175	131.1	.1825	124.7	.1660	97.8
1900 .....	.2417	127.6	.1661	134.6	.2067	124.6	.1800	123.0	.1813	106.8
1901 .....	.2300	121.4	.1687	136.7	.2088	125.9	.1815	124.0	.1900	112.0
1902 .....	.2700	142.6	.1201	97.3	.1783	107.5	.1326	90.6	.2153	126.9
1903 .....	.2800	147.8	.1368	110.9	.1917	115.6	.1497	102.3	.2250	132.6

Year.	Metals and implements.									
	Files: 8-inch mill bastard.		Hammers: Maydole No. 1½.		Lead: pig.		Lead pipe.		Locks: com- mon mortise.	
	Average price per dozen.	Rela- tive price.	Average price each.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price each.	Rela- tive price.
Average, 1890-1899..	\$0.8527	100.0	\$0.3613	100.0	\$0.0381	100.0	\$4.8183	100.0	\$0.0817	100.0
1890 .....	.9100	106.7	.3500	96.9	.0440	115.5	5.4000	112.1	.0830	101.6
1891 .....	.8917	104.6	.3500	96.9	.0437	114.7	5.6000	116.2	.0830	101.6
1892 .....	.8717	102.2	.3500	96.9	.0413	108.4	5.1833	107.6	.0830	101.6
1893 .....	.8667	101.6	.3500	96.9	.0374	98.2	5.0000	103.8	.0830	101.6
1894 .....	.8300	97.3	.3500	96.9	.0331	86.9	4.4333	92.0	.0818	100.1
1895 .....	.8133	95.4	.3525	97.6	.0326	85.6	4.2000	87.2	.0833	102.0
1896 .....	.7775	91.2	.3800	105.2	.0300	78.7	4.1000	85.1	.0867	106.1
1897 .....	.8050	94.4	.3800	105.2	.0358	94.0	4.3167	89.6	.0833	102.0
1898 .....	.8250	96.8	.3633	100.6	.0380	99.7	4.6000	95.5	.0750	91.8
1899 .....	.9358	109.7	.3867	107.0	.0448	117.6	5.3500	111.0	.0750	91.8
1900 .....	1.0900	127.8	.4189	115.9	.0445	116.8	5.1208	106.3	.0788	96.5
1901 .....	1.0500	123.1	.4233	117.2	.0438	115.0	5.0479	104.8	.0750	91.8
1902 .....	1.0500	123.1	.4233	117.2	.0411	107.9	5.2167	108.3	.0850	104.0
1903 .....	1.0500	123.1	.4660	129.0	.0428	112.3	5.1958	107.8	.0900	110.2



**TABLE IV.—BASE PRICES (AVERAGE FOR 1890–1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.**

[For a more detailed description of the articles see Table I.]

Year.	Metals and implements.									
	Nails: cut, 8-penny, fence and common.		Nails: wire, 8-penny, fence and common.		Pig iron: Bessemer.		Pig iron: foundry No. 1.		Pig iron: foundry No. 2.	
	Average price per 100 lbs.	Relative price.	Average price per 100 lbs.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.
Average, 1890–1899..	\$1.8275	100.0	\$2.1618	100.0	\$13.7783	100.0	\$14.8042	100.0	\$13.0533	100.0
1890 .....	2.2875	125.2	2.9646	137.1	18.8725	137.0	18.4083	124.3	17.1563	131.4
1891 .....	1.8333	100.3	2.4667	114.1	15.9500	115.8	17.5208	118.4	15.3958	117.9
1892 .....	1.7583	96.2	2.1896	101.3	14.3667	104.3	15.7492	106.4	13.7729	105.5
1893 .....	1.6813	92.0	1.9917	92.1	12.8692	93.4	14.5167	98.1	12.4396	95.3
1894 .....	1.5271	83.6	1.6521	76.4	11.3775	82.6	12.6642	85.5	10.8458	83.1
1895 .....	1.9250	105.3	2.1177	98.0	12.7167	92.3	13.1033	88.5	11.6750	89.4
1896 .....	2.7125	148.4	2.9250	135.3	12.1400	88.1	12.9550	87.5	11.7708	90.2
1897 .....	1.3329	72.9	1.4854	68.7	10.1258	73.5	12.1008	81.7	10.1000	77.4
1898 .....	1.1927	65.3	1.4375	66.5	10.3317	75.0	11.6608	78.8	10.0271	76.8
1899 .....	2.0240	110.8	2.3875	110.4	19.0333	138.1	19.3633	130.8	17.3500	132.9
1900 .....	2.2500	123.1	2.6333	121.8	19.4925	141.5	19.9800	135.0	18.5063	141.8
1901 .....	2.1125	115.6	2.5646	109.4	15.9350	115.7	15.8683	107.2	14.7188	112.8
1902 .....	2.1333	116.7	2.1042	97.3	20.6742	150.0	22.1933	149.9	21.2396	162.7
1903 .....	2.1958	120.2	2.0750	96.0	18.9758	137.7	19.9158	134.5	19.1417	146.6

Year.	Metals and implements.									
	Pig iron: gray forge, Southern, coke.		Planes: Bailey No. 5.		Quicksilver.		Saws: cross-cut, Disston.		Saws: hand, Disston No. 7.	
	Average price per ton.	Relative price.	Average price each.	Relative price.	Average price per pound.	Relative price.	Average price each.	Relative price.	Average price per dozen.	Relative price.
Average, 1890–1899..	\$11.0892	100.0	\$1.3220	100.0	\$0.5593	100.0	\$1.6038	100.0	\$12.780	100.0
1890 .....	14.5000	130.8	1.4200	107.4	.7300	130.5	1.6038	100.0	14.400	112.7
1891 .....	12.5167	112.9	1.4200	107.4	.6283	112.3	1.6038	100.0	12.600	98.6
1892 .....	11.7917	106.3	1.4200	107.4	.5642	100.9	1.6038	100.0	12.600	98.6
1893 .....	10.6354	95.9	1.4200	107.4	.5213	93.2	1.6038	100.0	12.600	98.6
1894 .....	8.9375	80.6	1.3783	104.3	.4792	85.7	1.6038	100.0	12.600	98.6
1895 .....	10.3229	93.1	1.2417	93.9	.5133	91.8	1.6038	100.0	12.600	98.6
1896 .....	9.6042	86.6	1.2300	93.0	.4979	89.0	1.6038	100.0	12.600	98.6
1897 .....	8.8021	79.4	1.2300	93.0	.5157	92.2	1.6038	100.0	12.600	98.6
1898 .....	8.7188	78.6	1.2300	93.0	.5425	97.0	1.6038	100.0	12.600	98.6
1899 .....	15.0625	135.8	1.2300	93.0	.6004	107.3	1.6038	100.0	12.600	98.6
1900 .....	15.6042	140.7	1.4142	107.0	.6769	121.0	1.6038	100.0	12.600	98.6
1901 .....	12.5521	113.2	1.4600	110.4	.6629	118.5	1.6038	100.0	12.600	98.6
1902 .....	17.6042	158.8	1.5100	114.2	.6458	115.5	1.6038	100.0	12.600	98.6
1903 .....	16.2292	146.4	1.5300	115.7	.6342	113.4	1.6038	100.0	12.600	98.6

Year.	Metals and implements.									
	Shovels: Ames No. 2.		Silver: bar, fine.		Spelter: Western.		Steel billets.		Steel rails.	
	Average price per dozen.	Relative price.	Average price per ounce.	Relative price.	Average price per pound.	Relative price.	Average price per ton.	Relative price.	Average price per ton.	Relative price.
Average, 1890–1899..	\$7.8658	100.0	\$0.74899	100.0	\$0.0452	100.0	\$21.5262	100.0	\$26.0654	100.0
1890 .....	7.8700	100.1	1.05329	140.6	.0554	122.6	30.4675	141.5	31.7792	121.9
1891 .....	7.8700	100.1	.99034	132.2	.0508	112.4	25.3292	117.7	29.9167	114.8
1892 .....	7.8700	100.1	.87552	116.9	.0465	102.9	23.6308	109.8	30.0000	115.1
1893 .....	7.8700	100.1	.78219	104.4	.0410	90.7	20.4358	94.9	28.1250	107.9
1894 .....	7.4500	94.7	.64043	85.5	.0355	78.5	16.5783	77.0	24.0000	92.1
1895 .....	7.4500	94.7	.66268	88.5	.0362	80.1	18.4842	85.9	24.3333	93.4
1896 .....	7.8100	99.3	.68195	91.0	.0401	88.7	18.8333	87.5	28.0000	107.4
1897 .....	7.9300	100.8	.60775	81.1	.0421	93.1	15.0800	70.1	18.7500	71.9
1898 .....	7.9300	100.8	.59065	78.9	.0453	100.2	15.3058	71.1	17.6250	67.6
1899 .....	8.6075	109.4	.60507	80.8	.0588	130.1	31.1167	144.6	28.1250	107.9
1900 .....	9.1200	115.9	.62065	82.9	.0442	97.8	25.0625	116.4	32.2875	123.9
1901 .....	9.1200	115.9	.59703	79.7	.0405	89.6	24.1308	112.1	27.3333	104.9
1902 .....	9.3550	118.9	.52816	70.5	.0487	107.7	30.5992	142.1	28.0000	107.4
1903 .....	8.0200	102.0	.54208	72.4	.0558	123.5	27.9117	129.7	28.0000	107.4



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899); AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Metals and implements.									
	Steel sheets: black, No. 27.		Tin: pig.		Tin plates: do- mestic, Besse- mer, coke, 14 x 20.		Tin plates: im- ported, Besse- mer, coke, I. C., 14 x 20.		Trowels: M. C. O., brick, 10½-inch.	
	Average price per pound.	Rela- tive price.	Average price per pound.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per box, 108 lbs. (a)	Rela- tive price.	Average price each.	Rela- tive price.
Average, 1890-1899...	b\$0.0224	100.0	\$0.1836	100.0	c\$3.4148	100.0	d\$4.5862	100.0	\$0.3400	100.0
1890 .....			.2121	115.5			4.7958	104.6	.3400	100.0
1891 .....			.2025	110.3			5.3367	116.4	.3400	100.0
1892 .....			.2037	110.9			5.3050	115.7	.3400	100.0
1893 .....			.2002	109.0			5.3717	117.1	.3400	100.0
1894 .....	.0235	104.9	.1812	98.7			4.8917	106.7	.3400	100.0
1895 .....	.0244	108.9	.1405	76.5			3.8725	84.4	.3400	100.0
1896 .....	.0215	96.0	.1330	72.4	3.4354	100.6	3.8000	82.9	.3400	100.0
1897 .....	.0195	87.1	.1358	74.0	3.1823	93.2	3.9025	85.1	.3400	100.0
1898 .....	.0190	84.8	.1551	84.5	2.8500	83.5	4.0000	87.2	.3400	100.0
1899 .....	.0267	119.2	.2721	148.2	4.1913	122.7	(e)		.3400	100.0
1900 .....	.0293	130.8	.3006	163.7	4.6775	137.0	(e)		.3400	100.0
1901 .....	.0315	140.6	.2618	142.6	4.1900	122.7	(e)		.3400	100.0
1902 .....	.0291	129.9	.2648	144.2	4.1233	120.7	(e)		.3400	100.0
1903 .....	.0260	116.1	.2816	153.4	3.9400	115.4	(e)		.3400	100.0

Year.	Metals and implements.						Lumber and building materials.			
	Vises: solid box, 50-pound.		Wood screws: 1-inch, No. 10, flat head.		Zinc: sheet.		Brick: common domestic.		Carbonate of lead: American, in oil.	
	Average price each.	Rela- tive price.	Average price per gross.	Rela- tive price.	Average price per 100 lbs.	Rela- tive price.	Average price per M.	Rela- tive price.	Average price per pound.	Rela- tive price.
Average, 1890-1899...	\$3.9009	100.0	\$0.1510	100.0	\$5.3112	100.0	\$5.5625	100.0	\$0.0577	100.0
1890 .....	4.1400	106.1	.1970	130.5	6.0542	114.0	6.5625	118.0	.0638	110.6
1891 .....	4.1400	106.1	.2000	132.5	5.7192	107.7	5.7083	102.6	.0650	112.7
1892 .....	4.2550	109.1	.2100	139.1	5.4900	103.4	5.7708	103.7	.0658	114.0
1893 .....	4.1975	107.6	.2100	139.1	4.9942	94.0	5.8333	104.9	.0609	105.5
1894 .....	4.0567	104.0	.1558	103.2	3.9500	74.4	5.0000	89.9	.0524	90.8
1895 .....	3.7933	97.2	.1117	74.0	4.5217	85.1	5.3125	95.5	.0525	91.0
1896 .....	3.7200	95.4	.1033	68.4	4.9400	93.0	5.0625	91.0	.0517	89.6
1897 .....	3.5000	89.7	.0850	56.3	4.9400	93.0	4.9375	88.8	.0535	92.7
1898 .....	3.2800	84.1	.0918	60.8	5.4983	103.5	5.7500	103.4	.0543	94.1
1899 .....	3.9267	100.7	.1452	96.2	7.0042	131.9	5.6875	102.2	.0568	98.4
1900 .....	4.2683	109.4	.1820	120.5	6.0950	114.8	5.2500	94.4	.0625	108.3
1901 .....	5.0200	128.7	.1045	69.2	5.5583	104.7	5.7656	103.7	.0576	99.8
1902 .....	5.1300	131.5	.0952	63.0	5.7308	107.9	5.3854	96.8	.0539	93.4
1903 .....	5.1767	132.7	.1093	72.4	6.0183	113.3	5.9063	106.2	.0615	106.6

Year.	Lumber and building materials.									
	Cement: Port- land, domestic.		Cement: Rosendale.		Doors: pine.		Hemlock.		Lime: common.	
	Average price per barrel.	Rela- tive price.	Average price per barrel.	Rela- tive price.	Average price per door.	Rela- tive price.	Average price per M feet.	Rela- tive price.	Average price per barrel.	Rela- tive price.
Average, 1890-1899...	f\$1.9963	100.0	\$0.8871	100.0	\$1.0929	100.0	\$11.9625	100.0	\$0.8332	100.0
1890 .....			1.0542	118.8	1.3750	125.8	12.5833	105.2	.9792	117.5
1891 .....			.9417	106.2	1.2500	114.4	12.4583	104.1	.9125	109.5
1892 .....			.9688	109.2	1.2500	114.4	12.2917	102.8	.9292	111.5
1893 .....			.8875	100.0	1.2250	112.1	12.0000	100.3	.9292	111.5
1894 .....			.9271	104.5	1.0500	96.1	11.7083	97.9	.8479	101.8
1895 .....	1.9688	98.6	.8521	96.1	.9125	83.5	11.1458	93.2	.7813	93.8
1896 .....	2.0000	100.2	.8333	93.9	.8375	76.6	11.1667	93.3	.6938	83.3
1897 .....	1.9667	98.5	.7521	84.8	.8125	74.3	11.0000	92.0	.7188	86.3
1898 .....	1.9979	100.1	.7604	85.7	.9250	84.6	11.7500	98.2	.7417	89.0
1899 .....	2.0479	102.6	.8938	100.8	1.2917	118.2	13.5208	113.0	.7979	95.8
1900 .....	2.1583	108.1	1.0167	114.6	1.5900	145.5	16.5000	137.9	.6833	82.0
1901 .....	1.8896	94.7	1.0188	114.8	1.8913	173.1	15.0000	125.4	.7742	92.9
1902 .....	1.9500	97.7	.8646	97.5	2.1208	194.1	15.8333	132.4	.8058	96.7
1903 .....	2.0292	101.6	.8896	100.3	1.7292	158.2	16.7917	140.4	.7875	94.5

a Duty paid.      b Average for the period July, 1894, to December, 1899.      c Average for 1896-1899.  
d Average for 1890-1898.      e No quotation for year.      f Average for 1895-1899.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Lumber and building materials.									
	Linseed oil: raw.		Maple: hard.		Oak: white, plain.		Oak: white, quartered.		Oxide of zinc.	
	Average price per gallon.	Relative price.	Average price per M feet.	Relative price.	Average price per M feet.	Relative price.	Average price per M feet.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.4535	100.0	\$26.5042	100.0	\$37.4292	100.0	\$53.6771	100.0	\$0.0400	100.0
1890 .....	.6158	135.8	26.5000	100.0	37.8750	101.2	51.4583	95.9	.0425	106.3
1891 .....	.4842	106.8	26.5000	100.0	38.0000	101.5	53.5833	99.8	.0419	104.8
1892 .....	.4083	90.0	26.5000	100.0	38.4583	102.7	53.0000	98.7	.0426	106.5
1893 .....	.4633	102.2	26.5000	100.0	38.7500	103.5	53.0000	98.7	.0413	103.3
1894 .....	.5242	115.6	26.5000	100.0	37.2500	99.5	51.1250	95.2	.0373	93.3
1895 .....	.5242	115.6	26.5000	100.0	36.2500	96.8	53.2500	99.2	.0350	87.5
1896 .....	.3683	81.2	26.5000	100.0	36.2500	96.8	54.5000	101.5	.0383	95.8
1897 .....	.3275	72.2	26.5000	100.0	36.2500	96.8	53.8333	100.3	.0377	94.3
1898 .....	.3925	86.5	26.5000	100.0	36.2500	96.8	52.5000	97.8	.0396	99.0
1899 .....	.4267	94.1	26.5417	100.1	38.9583	104.1	60.5208	112.7	.0438	109.5
1900 .....	.6292	138.7	27.5000	103.8	40.8333	109.1	64.4583	120.1	.0451	112.8
1901 .....	.6350	140.0	26.7083	100.8	36.7708	98.2	59.1667	110.2	.0438	109.5
1902 .....	.5933	130.8	28.5833	107.8	40.8750	109.2	63.0833	117.5	.0440	110.0
1903 .....	.4167	91.9	31.6667	119.5	44.8333	119.8	74.7917	139.3	.0463	115.8

Year.	Lumber and building materials.									
	Pine: white, boards, No. 2 barn.		Pine: white, boards, uppers.		Pine: yellow.		Plate glass: polished, 3 to 5 sq. ft.		Plate glass: polished, 5 to 10 sq. ft.	
	Average price per M feet.	Relative price.	Average price per M feet.	Relative price.	Average price per M feet.	Relative price.	Average price per sq. ft.	Relative price.	Average price per sq. ft.	Relative price.
Average, 1890-1899..	\$17.1104	100.0	\$46.5542	100.0	\$18.4646	100.0	\$0.3630	100.0	\$0.5190	100.0
1890 .....	16.7917	98.1	44.0833	94.7	20.7500	112.4	.5300	146.0	.7000	134.9
1891 .....	17.0000	99.4	45.0000	96.7	19.9583	108.1	.5200	143.3	.6900	132.9
1892 .....	17.1458	100.2	46.0417	98.9	18.5000	100.2	.4200	115.7	.5500	106.0
1893 .....	18.6250	108.9	48.5000	104.2	18.5000	100.2	.4200	115.7	.5500	106.0
1894 .....	18.1667	106.2	46.4167	99.7	18.5000	100.2	.3300	90.9	.4500	86.7
1895 .....	17.2500	100.8	46.0000	98.8	16.9167	91.6	.3000	82.6	.4800	92.5
1896 .....	16.5000	96.4	46.6250	100.2	16.4167	88.9	.3400	93.7	.5400	104.0
1897 .....	15.8333	92.5	46.3333	99.5	16.4375	89.0	.2000	55.1	.3200	61.7
1898 .....	15.5000	90.6	46.0833	99.0	18.6250	100.9	.2700	74.4	.4300	82.9
1899 .....	18.2917	106.9	50.4583	108.4	20.0417	108.5	.3000	82.6	.4800	92.5
1900 .....	21.5000	125.7	57.5000	123.5	20.7083	112.2	.3400	93.7	.5400	104.0
1901 .....	20.8750	122.0	60.4167	129.8	19.6667	106.5	.3200	88.2	.4900	94.4
1902 .....	23.5000	137.3	74.8333	160.7	21.0000	113.7	.2575	70.9	.4113	79.2
1903 .....	24.0000	140.3	80.0000	171.8	21.0000	113.7	.2625	72.3	.4313	83.1

Year.	Lumber and building materials.									
	Poplar.		Putty.		Resin: good, strained.		Shingles: cypress.		Shingles: white pine, 18 in.	
	Average price per M feet.	Relative price.	Average price per pound.	Relative price.	Average price per barrel.	Relative price.	Average price per M.	Relative price.	Average price per M.	Relative price.
Average, 1890-1899..	\$31.3667	100.0	\$0.0158	100.0	\$1.4399	100.0	\$2.8213	100.0	\$3.7434	100.0
1890 .....	30.5000	97.2	.0175	110.8	1.3844	96.1	3.3500	118.7	3.8417	102.6
1891 .....	30.5000	97.2	.0175	110.8	1.4740	102.4	3.2500	115.2	4.0000	106.9
1892 .....	30.6042	97.6	.0161	101.9	1.3417	93.2	3.1500	111.7	3.9063	104.4
1893 .....	33.6250	107.2	.0160	101.3	1.2615	87.6	3.0000	106.3	3.8500	102.8
1894 .....	31.7500	101.2	.0157	99.4	1.2510	86.9	2.8000	99.2	3.7500	100.2
1895 .....	31.0000	98.8	.0145	91.8	1.5615	108.4	2.6500	93.9	3.7000	98.8
1896 .....	31.0000	98.8	.0145	91.8	1.7458	121.2	2.5000	88.6	3.6125	96.5
1897 .....	30.6667	97.8	.0145	91.8	1.6125	112.0	2.3500	83.3	3.5417	94.6
1898 .....	30.0000	95.6	.0145	91.8	1.4208	98.7	2.5000	88.6	3.5521	94.9
1899 .....	34.0208	108.5	.0168	106.3	1.3458	93.5	2.6625	94.4	3.6792	98.3
1900 .....	37.6875	120.2	.0190	120.3	1.6021	111.3	2.8500	101.0	4.0000	106.9
1901 .....	36.7083	117.0	.0150	94.9	1.5302	106.3	2.8500	101.0	4.1875	111.9
1902 .....	42.1042	134.2	.0192	121.5	1.6125	112.0	2.6708	94.7	a 3.5875	a 123.0
1903 .....	49.6458	158.3	.0141	89.2	2.2156	153.9	2.5667	91.0	a 3.6500	a 125.1

a Shingles: Michigan white pine, 16 inches long, XXXX. For method of computing relative price see pages 241 and 242. Average price for 1901, \$3.2625.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Lumber and building materials.									
	Spruce.		Tar.		Turpentine: spirits of.		Window glass: American, single, firsts, 6 x 8 to 10 x 15 inch.		Window glass: American, single, thirds, 6 x 8 to 10 x 15 inch.	
	Average price per M feet.	Relative price.	Average price per barrel.	Relative price.	Average price per gallon.	Relative price.	Average price per 50 sq. ft.	Relative price.	Average price per 50 sq. ft.	Relative price.
Average, 1890-1899...	\$14.3489	100.0	\$1.2048	100.0	\$0.3343	100.0	\$2.1514	100.0	\$1.8190	100.0
1890 .....	16.2917	113.5	1.4750	122.4	.4080	122.0	2.2283	103.6	1.7858	98.2
1891 .....	14.2183	99.1	1.5833	131.4	.3795	113.5	2.2125	102.8	1.7700	97.3
1892 .....	14.8542	103.5	1.3000	107.9	.3227	96.5	1.9935	92.7	1.5948	87.7
1893 .....	13.7708	96.0	1.0458	86.8	.3002	89.8	2.1375	99.4	1.7100	94.0
1894 .....	12.7083	88.6	1.0917	90.6	.2932	87.7	1.9918	92.6	1.6326	89.8
1895 .....	14.2500	99.3	1.1417	94.8	.2923	87.4	1.5988	74.3	1.3919	76.5
1896 .....	14.2500	99.3	1.0125	84.0	.2743	82.1	1.8021	83.8	1.6000	88.0
1897 .....	14.0000	97.6	1.0542	87.5	.2924	87.5	2.1986	102.2	1.9630	107.9
1898 .....	13.7500	95.8	1.0979	91.1	.3221	96.4	2.6432	122.9	2.3428	128.8
1899 .....	15.3958	107.3	1.2458	103.4	.4581	137.0	2.7081	125.9	2.3986	131.9
1900 .....	17.3750	121.1	1.3625	113.1	.4771	142.7	2.6990	125.5	2.3194	127.5
1901 .....	18.0000	125.4	1.2817	106.4	.3729	111.5	4.1282	191.9	3.2823	180.4
1902 .....	19.2500	134.2	1.3250	110.0	.4740	141.8	3.2187	149.6	2.5649	141.0
1903 .....	19.1875	133.7	1.6792	139.4	.5715	171.0	2.6400	122.7	2.1600	118.7

Year.	Drugs and chemicals.							
	Alcohol: grain, 94 per cent.		Alcohol: wood, refined, 95 per cent.		Alum: lump.		Brimstone: crude, seconds.	
	Average price per gallon.	Relative price.	Average price per gallon.	Relative price.	Average price per pound.	Relative price.	Average price per ton.	Relative price.
Average, 1890-1899...	\$2.2405	100.0	\$0.9539	100.0	\$0.0167	100.0	\$20.6958	100.0
1890 .....	2.0717	92.5	1.1375	119.2	.0182	109.0	21.1458	102.2
1891 .....	2.2150	98.9	1.1598	121.6	.0158	94.6	28.6042	138.2
1892 .....	2.1417	95.6	1.2973	136.0	.0160	95.8	24.1458	116.7
1893 .....	2.1808	97.3	1.2917	135.4	.0174	104.2	18.7292	90.5
1894 .....	2.1521	96.1	.7198	75.5	.0169	101.2	16.5833	80.1
1895 .....	2.3292	104.0	.8667	90.9	.0160	95.8	15.6250	75.5
1896 .....	2.3008	102.7	.8500	89.1	.0164	98.2	17.9583	86.8
1897 .....	2.2767	101.6	.6958	72.9	.0166	99.4	20.1250	97.2
1898 .....	2.3250	103.8	.7500	78.6	.0165	98.8	22.9167	110.7
1899 .....	2.4117	107.6	.7708	80.8	.0168	100.6	21.1250	102.1
1900 .....	2.3867	106.5	.8000	83.9	.0175	104.8	21.1458	102.2
1901 .....	2.4583	109.7	.6125	64.2	.0175	104.8	22.0000	106.3
1902 .....	2.4057	107.4	.6417	67.3	.0175	104.8	23.4375	113.2
1903 .....	2.3958	106.9	.5917	62.0	.0173	103.6	22.3333	107.9

Year.	Drugs and chemicals.							
	Glycerin: refined.		Muriatic acid: 20°.		Opium: natural, in cases.		Quinine: American.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per ounce.	Relative price.
Average, 1890-1899...	\$0.1399	100.0	\$0.0104	100.0	\$2.3602	100.0	\$0.2460	100.0
1890 .....	.1767	126.3	.0104	100.0	2.6208	111.0	.3275	133.1
1891 .....	.1538	109.9	.0098	94.2	1.9438	82.4	.2508	102.0
1892 .....	.1396	99.8	.0121	116.3	1.6708	70.8	.2183	88.7
1893 .....	.1346	96.2	.0101	97.1	2.3917	101.3	.2150	87.4
1894 .....	.1194	85.3	.0088	84.6	2.2854	96.8	.2621	106.5
1895 .....	.1204	86.1	.0083	79.8	1.8413	78.0	.2508	102.0
1896 .....	.1671	119.4	.0075	72.1	2.0917	88.6	.2406	97.8
1897 .....	.1308	93.5	.0109	104.8	2.3417	99.2	.1829	74.3
1898 .....	.1238	88.5	.0128	123.1	3.3417	141.6	.2146	87.2
1899 .....	.1329	95.0	.0135	129.8	3.0729	130.2	.2975	120.9
1900 .....	.1515	108.3	.0135	129.8	3.2000	135.6	.3325	135.2
1901 .....	.1504	107.5	.0150	144.2	3.2292	136.8	.3025	123.0
1902 .....	.1444	103.2	.0168	161.5	2.8313	120.0	.2575	104.7
1903 .....	.1446	103.4	.0160	153.8	3.0813	130.6	.2525	102.6



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	Drugs and chemicals.		House furnishing goods.					
	Sulphuric acid: 66°.		Earthenware: plates, cream-colored.		Earthenware: plates, white granite.		Earthenware: teacups and saucers, white granite.	
	Average price per pound.	Relative price.	Average price per dozen.	Relative price.	Average price per dozen.	Relative price.	Average price per gross (6 dozencups and 6dozen saucers).	Relative price.
Average, 1890-1899..	\$0.0089	100.0	\$0.4136	100.0	\$0.4479	100.0	\$3.4292	100.0
1890 .....	.0088	98.9	.4465	108.0	.4888	109.1	3.7600	109.6
1891 .....	.0081	91.0	.4367	105.6	.4786	106.9	3.6817	107.4
1892 .....	.0095	106.7	.4230	102.3	.4644	103.7	3.5720	104.2
1893 .....	.0085	95.5	.4230	102.3	.4644	103.7	3.5720	104.2
1894 .....	.0073	82.0	.4177	101.0	.4566	101.9	3.5250	102.8
1895 .....	.0070	78.7	.3913	94.6	.4162	92.9	3.2374	94.4
1896 .....	.0070	78.7	.3807	92.0	.3991	89.1	3.0907	90.1
1897 .....	.0095	106.7	.3807	92.0	.3991	89.1	3.0907	90.1
1898 .....	.0113	127.0	.4153	100.4	.4515	100.8	3.3595	98.0
1899 .....	.0120	134.8	.4208	101.7	.4607	102.9	3.4026	99.2
1900 .....	.0120	134.8	.4410	106.6	.4841	108.1	3.5750	104.3
1901 .....	.0125	140.4	.4655	112.5	.5096	113.8	3.7632	109.7
1902 .....	.0130	146.1	.4655	112.5	.5096	113.8	3.7632	109.7
1903 .....	.0127	142.7	.4775	115.4	.4988	111.4	3.6832	107.4

Year.	House furnishing goods.							
	Furniture: bed-room sets, ash.		Furniture: chairs, bedroom, maple.		Furniture: chairs, kitchen.		Furniture: tables, kitchen.	
	Average price per set.	Relative price.	Average price per dozen.	Relative price.	Average price per dozen.	Relative price.	Average price per dozen.	Relative price.
Average, 1890-1899..	\$10.555	100.0	\$6.195	100.0	\$3.8255	100.0	\$14.435	100.0
1890 .....	12.000	113.7	7.000	113.0	4.2000	109.8	15.000	103.9
1891 .....	12.000	113.7	7.000	113.0	4.2000	109.8	15.000	103.9
1892 .....	12.000	113.7	6.850	110.6	4.2500	111.1	15.000	103.9
1893 .....	11.000	104.2	6.850	110.6	4.2500	111.1	15.000	103.9
1894 .....	11.000	104.2	6.000	96.9	3.5000	91.5	14.250	98.7
1895 .....	9.950	94.3	6.000	96.9	3.5000	91.5	14.250	98.7
1896 .....	8.750	82.9	6.000	96.9	3.5000	91.5	13.800	95.6
1897 .....	8.750	82.9	5.000	80.7	3.5000	91.5	13.800	95.6
1898 .....	10.000	94.7	5.125	82.7	3.3130	86.6	13.800	95.6
1899 .....	10.100	95.7	6.125	98.9	4.0420	105.7	14.450	100.1
1900 .....	11.250	106.6	8.000	129.1	5.2080	136.1	15.600	108.1
1901 .....	11.250	106.6	7.000	113.0	4.7500	124.2	15.600	108.1
1902 .....	11.750	111.3	7.333	118.4	4.9167	128.5	15.600	108.1
1903 .....	12.167	115.3	7.917	127.8	5.0000	130.7	15.600	108.1

Year.	House furnishing goods.							
	Glassware: nappies, 4-inch.		Glassware: pitchers, $\frac{1}{2}$ -gallon, common.		Glassware: tumblers, $\frac{1}{2}$ -pint, common.		Table cutlery: carvers, stag handles.	
	Average price per dozen.	Relative price.	Average price per dozen.	Relative price.	Average price per dozen.	Relative price.	Average price per pair.	Relative price.
Average, 1890-1899..	\$0.112	100.0	\$1.175	100.0	\$0.1775	100.0	\$0.80	100.0
1890 .....	.120	107.1	1.250	106.4	.1800	101.4	.80	100.0
1891 .....	.120	107.1	1.250	106.4	.2000	112.7	.80	100.0
1892 .....	.120	107.1	1.250	106.4	.1900	107.0	.80	100.0
1893 .....	.120	107.1	1.250	106.4	.1900	107.0	.95	118.8
1894 .....	.120	107.1	1.250	106.4	.1900	107.0	.80	100.0
1895 .....	.120	107.1	1.250	106.4	.1850	104.2	.80	100.0
1896 .....	.100	89.3	1.250	106.4	.1800	101.4	.80	100.0
1897 .....	.100	89.3	1.000	85.1	.1700	95.8	.75	93.8
1898 .....	.100	89.3	1.000	85.1	.1600	90.1	.75	93.8
1899 .....	.100	89.3	1.000	85.1	.1300	73.2	.75	93.8
1900 .....	.100	89.3	1.000	85.1	.1800	101.4	.75	93.8
1901 .....	.140	125.0	1.300	110.6	.1800	101.4	.75	93.8
1902 .....	.140	125.0	1.300	110.6	.1850	104.2	.75	93.8
1903 .....	.140	125.0	1.300	110.6	.1767	99.5	.75	93.8



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[For a more detailed description of the articles see Table I.]

Year.	House furnishing goods.						Miscellaneous.	
	Table cutlery: knives and forks, cocobolo handles.		Wooden ware: pails, oak-grained.		Wooden ware: tubs, oak-grained.		Cotton-seed meal.	
	Average price per gross.	Relative price.	Average price per dozen.	Relative price.	Average price per nest of 3.	Relative price.	Average price per ton of 2,000 pounds.	Relative price.
Average, 1890-1899..	\$6.06	100.0	\$1.2988	100.0	\$1.3471	100.0	\$21.9625	100.0
1890 .....	7.75	127.9	1.5917	122.6	1.6500	122.5	23.3750	106.4
1891 .....	7.75	127.9	1.4500	111.6	1.5667	116.3	25.2083	114.8
1892 .....	6.85	113.0	1.3500	103.9	1.4000	103.9	23.6958	107.9
1893 .....	5.50	90.8	1.3125	101.1	1.3083	97.1	25.7042	117.0
1894 .....	5.50	90.8	1.2583	96.9	1.2875	95.6	22.5583	102.7
1895 .....	5.50	90.8	1.1208	86.3	1.2500	92.8	18.9125	86.1
1896 .....	5.50	90.8	1.2625	97.2	1.2500	92.8	19.9375	90.8
1897 .....	5.00	82.5	1.2417	95.6	1.2500	92.8	20.4375	93.1
1898 .....	5.50	90.8	1.1333	87.3	1.2500	92.8	19.0000	86.5
1899 .....	5.75	94.9	1.2667	97.5	1.2583	93.4	20.7958	94.7
1900 .....	5.75	94.9	1.4917	114.9	1.4417	107.0	25.5458	116.3
1901 .....	6.50	107.3	1.5500	119.3	1.4500	107.6	25.0208	113.9
1902 .....	6.50	107.3	1.5500	119.3	1.4500	107.6	27.1333	123.5
1903 .....	6.50	107.3	1.5875	122.2	1.4500	107.6	26.7083	121.6

Year.	Miscellaneous.							
	Cotton-seed oil: summer yellow, prime.		Jute: raw.		Malt: Western made.		Paper: news.	
	Average price per gallon.	Relative price.	Average price per pound.	Relative price.	Average price per bushel.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.3044	100.0	\$0.0359	100.0	\$0.7029	100.0	\$0.0299	100.0
1890 .....	.3446	113.2	.0388	108.1	.7500	106.7	.0382	127.8
1891 .....	.3567	117.2	.0371	103.3	.9271	131.9	.0340	113.7
1892 .....	.3088	101.4	.0475	132.3	.8015	114.0	.0340	113.7
1893 .....	.4550	149.5	.0346	96.4	.7750	110.3	.0318	106.4
1894 .....	.3238	106.4	.0345	96.1	.7446	105.9	.0323	108.0
1895 .....	.2721	89.4	.0279	77.7	.6854	97.5	.0308	103.0
1896 .....	.2513	82.6	.0319	88.9	.5629	80.1	.0275	92.0
1897 .....	.2365	77.7	.0373	103.9	.5438	77.4	.0271	90.6
1898 .....	.2288	75.2	.0332	92.5	.6163	87.7	.0219	73.2
1899 .....	.2663	87.5	.0365	101.7	.6221	88.5	.0209	69.9
1900 .....	.3556	116.8	.0435	121.2	.6538	93.0	.0281	94.0
1901 .....	.3571	117.3	.0400	111.4	.7450	106.0	.0226	75.6
1902 .....	.4067	133.6	.0438	122.0	.7925	112.7	.0242	80.9
1903 .....	.3977	130.7	.0464	129.2	.7246	103.1	.0253	84.6

Year.	Miscellaneous.							
	Paper: wrapping, manila.		Proof spirits.		Rope: manila, ¾-inch.		Rubber: Para Island.	
	Average price per pound.	Relative price.	Average price per gallon.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899..	\$0.0553	100.0	\$1.1499	100.0	\$0.0934	100.0	\$0.8007	100.0
1890 .....	.0575	104.0	1.0533	91.6	.1494	160.0	.8379	104.6
1891 .....	.0575	104.0	1.1052	96.1	.1038	111.1	.7908	98.8
1892 .....	.0558	100.9	1.0757	93.5	.1148	122.9	.6763	84.5
1893 .....	.0579	104.7	1.0713	93.2	.0919	98.4	.7167	89.5
1894 .....	.0584	105.6	1.1326	98.5	.0770	82.4	.6744	84.2
1895 .....	.0586	106.0	1.2109	105.3	.0735	78.7	.7425	92.7
1896 .....	.0588	106.3	1.2031	104.6	.0664	71.1	.8000	99.9
1897 .....	.0588	106.3	1.1830	102.9	.0631	67.6	.8454	105.6
1898 .....	.0459	83.0	1.2220	106.3	.0842	90.1	.9271	115.8
1899 .....	.0438	79.2	1.2421	108.0	.1094	117.1	.9954	124.3
1900 .....	.0480	86.8	1.2460	108.4	.1320	141.3	.9817	122.6
1901 .....	.0502	90.8	1.2861	111.8	.1092	116.9	.8496	106.1
1902 .....	.0497	89.9	1.3138	114.3	.1348	144.3	.7273	90.8
1903 .....	.0526	95.1	1.2809	111.4	a.1146	a122.7	.9054	113.1

a 7/16-inch.



TABLE IV.—BASE PRICES (AVERAGE FOR 1890-1899), AND AVERAGE YEARLY ACTUAL AND RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Concluded.

[For a more detailed description of the articles see Table I.]

Year.	Miscellaneous.							
	Soap: castile, mot- tled, pure.		Starch: laundry.		Tobacco: plug, Horseshoe.		Tobacco: smoking, granulated, Seal of N. C.	
	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.	Average price per pound.	Relative price.
Average, 1890-1899...	\$0.0569	100.0	\$0.0348	100.0	\$0.3962	100.0	\$0.5090	100.0
1890 .....	.0594	104.4	.0371	106.6	.4050	102.2	.5000	98.2
1891 .....	.0621	109.1	.0426	122.4	.4008	101.2	.5000	98.2
1892 .....	.0624	109.7	.0373	107.2	.3725	94.0	.5000	98.2
1893 .....	.0615	108.1	.0366	105.2	.3967	100.1	.5000	98.2
1894 .....	.0588	103.3	.0366	105.2	.4000	101.0	.5000	98.2
1895 .....	.0507	89.1	.0363	104.3	.4000	101.0	.5000	98.2
1896 .....	.0502	88.2	.0310	89.1	.3808	96.1	.5000	98.2
1897 .....	.0531	93.3	.0300	86.2	.3758	94.9	.5000	98.2
1898 .....	.0550	96.7	.0300	86.2	.4133	104.3	.5300	104.1
1899 .....	.0558	98.1	.0300	86.2	.4175	105.4	.5600	110.0
1900 .....	.0613	107.7	.0340	97.7	.4433	111.9	.5600	110.0
1901 .....	.0655	115.1	.0363	104.3	.4658	117.6	.5600	110.0
1902 .....	.0663	116.5	.0454	130.5	.4542	114.6	.5592	109.9
1903 .....	.0658	115.6	.0431	123.9	.4500	113.6	.5700	112.0

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Farm products.										
	Cotton: upland, mid- dling.	Flax- seed: No. 1.	Grain.						Hay: timo- thy, No. 1.	Hides: green, salted, packers, heavy native steers.	Hops: New York State, choice.
			Barley: by sample.	Corn: No. 2, cash.	Oats: cash.	Rye: No. 2, cash.	Wheat: contract grades, cash.	Aver- age.			
1890....	142.9	125.5	111.6	103.8	115.6	103.0	118.9	110.6	95.8	99.6	148.0
1891....	110.8	97.1	134.5	151.0	144.1	157.6	128.1	143.1	117.8	101.5	149.1
1892....	99.0	91.4	112.2	118.3	113.2	127.7	104.9	115.3	113.5	92.8	141.4
1893....	107.2	97.7	103.3	104.2	105.2	92.6	90.1	99.1	107.4	79.9	128.2
1894....	90.2	121.6	113.2	113.7	115.7	88.1	74.4	101.0	99.9	68.4	85.5
1895....	94.0	111.8	94.8	104.0	88.3	91.2	79.9	91.6	109.1	109.7	53.1
1896....	102.0	72.9	65.7	67.8	67.0	66.5	85.4	70.5	99.0	86.6	49.5
1897....	92.2	78.1	71.2	66.9	67.9	74.9	105.8	77.3	80.9	106.3	65.5
1898....	76.9	99.8	95.9	82.6	91.9	93.8	117.8	96.4	79.9	122.8	91.5
1899....	84.7	104.0	97.6	87.6	91.2	104.4	94.7	95.1	96.6	131.8	88.3
1900....	123.8	145.7	106.2	100.2	84.5	97.9	93.7	96.5	110.9	127.4	83.7
1901....	111.1	145.8	129.8	130.6	118.3	100.8	95.7	115.0	123.0	132.0	97.1
1902....	115.1	135.0	139.4	156.9	147.3	102.5	98.7	129.0	120.9	142.8	134.1
1903....	144.7	94.1	121.2	121.1	131.7	97.5	105.1	115.3	119.2	124.8	159.5

Year.	Farm products.										
	Live stock.										Average, farm prod- ucts.
	Cattle.			Hogs.			Sheep.			Average.	
	Steers, choice to extra.	Steers, good to choice.	Average.	Heavy.	Light.	Average.	Native.	West- ern.	Average.		
1890....	91.5	87.4	89.5	89.6	88.8	89.2	120.5	118.0	119.3	99.3	110.0
1891....	110.6	107.7	109.2	100.2	98.2	99.2	120.0	115.6	117.8	108.7	121.5
1892....	95.7	95.0	95.4	116.8	114.6	115.7	127.2	123.2	125.2	112.1	111.7
1893....	103.8	102.2	103.0	148.4	148.7	148.6	103.2	104.3	103.8	118.4	107.9
1894....	97.0	95.6	96.3	112.7	111.6	112.2	71.7	75.4	73.6	94.0	95.9
1895....	103.1	104.2	103.7	97.0	96.2	96.6	78.5	78.3	78.4	92.9	93.3
1896....	86.4	90.2	88.3	76.1	80.5	78.3	78.0	79.4	78.7	81.8	78.3
1897....	98.2	100.8	99.5	81.4	84.2	82.8	93.1	95.3	94.2	92.2	85.2
1898....	101.1	103.2	102.2	86.2	85.0	85.6	104.4	105.3	104.9	97.5	96.1
1899....	112.6	113.7	113.2	91.5	92.1	91.8	103.3	105.2	104.3	103.1	100.0
1900....	108.7	113.9	111.3	115.2	115.7	115.5	109.7	114.3	112.0	112.9	109.5
1901....	115.1	118.1	116.6	135.0	133.9	134.5	89.2	94.7	92.0	114.3	116.9
1902....	140.4	138.5	139.5	158.0	152.4	155.2	100.6	105.7	103.2	132.6	130.5
1903....	104.7	106.9	105.8	137.3	137.0	137.2	98.7	98.0	98.4	113.8	118.8



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Food, etc.								
	Beans: medium, choice.	Bread.							Average.
		Crackers.			Loaf.				
		Boston X.	Soda.	Average.	Washing- ton mar- ket.	Home- made (N. Y. mar- ket).	Vienna (N. Y. market).	Average.	
1890....	121.5	104.0	111.4	107.7	100.5	101.0	101.0	100.8	103.6
1891....	134.9	104.0	111.4	107.7	100.5	101.0	101.0	100.8	103.6
1892....	112.0	102.2	106.3	104.3	100.5	101.0	101.0	100.8	102.2
1893....	119.2	96.6	104.5	100.6	100.5	101.0	101.0	100.8	100.7
1894....	110.6	96.6	101.0	98.8	105.5	101.0	101.0	100.8	100.0
1895....	107.2	97.2	94.0	95.6	94.2	101.0	101.0	98.7	97.5
1896....	70.3	96.6	91.6	94.1	102.5	90.4	90.4	94.4	94.3
1897....	62.6	88.0	82.5	85.3	100.5	101.0	101.0	100.8	94.6
1898....	74.7	108.9	105.6	107.3	100.5	101.0	101.0	100.8	103.4
1899....	87.0	105.9	92.3	99.1	100.5	101.0	101.0	100.8	100.1
1900....	125.6	111.4	94.0	102.7	100.5	101.0	101.0	100.8	101.6
1901....	131.3	118.9	97.5	108.2	100.5	101.0	101.0	100.8	103.8
1902....	115.0	118.9	97.5	108.2	100.5	101.0	101.0	100.8	103.8
1903....	135.5	112.6	90.0	101.3	100.5	101.0	101.0	100.8	101.0

Year.	Food, etc.											
	Butter.				Cheese: New York State, full cream.	Coffee: Rio No. 7.	Eggs: new- laid, fancy, near- by.	Fish.				
	Cream- ery, Elgin (Elgin mar- ket).	Cream- ery, extra (New York mar- ket).	Dairy, New York State.	Aver- age.				Cod, dry, bank, large.	Her- ring, shore, round.	Mack- erel, salt, large No. 3s.	Salmon, canned.	Aver- age.
1890.....	103.1	101.5	96.5	100.4	97.1	136.6	99.1	101.7	93.3	129.2	111.4	108.9
1891.....	115.3	115.3	117.6	116.1	102.4	127.3	110.0	120.5	124.6	108.4	101.8	113.8
1892.....	116.5	116.5	116.1	116.4	107.2	108.9	110.4	126.3	77.8	92.0	100.7	99.2
1893.....	118.9	120.5	124.6	121.3	109.0	131.2	114.5	114.2	101.0	92.0	101.4	102.2
1894.....	101.1	102.1	103.3	102.2	107.4	126.0	93.5	106.7	89.9	78.2	96.7	92.9
1895.....	95.1	95.3	93.0	94.5	94.1	121.2	102.0	98.9	83.6	110.6	102.1	98.8
1896.....	82.6	82.1	82.3	82.3	92.0	93.9	88.7	75.4	88.8	98.5	105.2	92.0
1897.....	84.7	84.5	83.2	84.1	98.1	60.4	87.5	80.9	96.3	86.5	90.8	88.6
1898.....	86.9	87.2	86.4	86.8	83.3	48.2	92.6	83.6	111.4	96.7	86.0	94.4
1899.....	95.6	94.8	97.1	95.8	108.9	46.0	101.6	92.0	133.2	107.9	103.8	109.2
1900.....	100.4	100.1	104.5	101.7	114.3	62.6	100.7	94.9	134.6	98.3	120.2	112.0
1901.....	97.4	96.5	99.2	97.7	102.4	49.2	106.7	107.2	131.9	76.6	116.3	108.0
1902.....	111.2	110.6	114.5	112.1	114.1	44.6	122.7	91.2	129.9	97.3	109.6	107.0
1903.....	106.1	104.7	106.2	105.7	123.3	42.6	123.2	105.0	151.7	123.5	110.0	122.6

Year.	Food, etc.								
	Flour.						Fruit.		
	Buck- wheat.	Rye.	Wheat.			Average.	Apples.		
			Spring patents.	Winter straights.	Average.		Evap- orated, choice.	Sun-dried, Southern, sliced.	Average.
1890....	104.0	101.4	120.7	121.0	120.9	111.8	134.1	134.0	134.1
1891....	125.7	148.3	123.5	127.6	125.6	131.3	129.9	160.2	145.1
1892....	92.1	121.1	101.1	107.2	104.2	105.4	81.2	82.1	81.7
1893....	121.9	93.0	93.2	85.4	89.3	98.4	109.4	98.6	104.0
1894....	125.4	83.8	83.7	71.5	77.6	91.1	128.9	122.5	125.7
1895....	86.2	94.5	84.8	84.0	84.4	87.4	80.0	93.4	86.7
1896....	71.1	80.9	88.3	94.1	91.2	83.6	62.9	60.6	61.8
1897....	75.4	84.6	106.8	113.4	110.1	95.1	65.5	51.8	58.7
1898....	79.8	92.9	110.1	107.8	109.0	97.7	105.1	77.3	91.2
1899....	118.4	99.4	87.8	88.0	87.9	98.4	102.6	118.4	110.5
1900....	108.3	103.3	89.4	87.1	88.3	97.0	72.6	86.0	79.3
1901....	108.4	100.1	88.7	86.0	87.4	95.8	83.7	79.6	81.7
1902....	115.1	103.8	88.6	90.7	89.7	99.6	108.7	98.4	103.6
1903....	119.5	94.9	100.8	93.4	97.1	102.2	72.1	83.9	78.0

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Food, etc.								
	Fruit.				Glucose: 41° and 42° mix- ing. (a)	Lard: prime contract.	Meal: corn.		
	Currants, in barrels.	Prunes, California, in boxes.	Raisins, California, London layer.	Average.			Fine white.	Fine. yellow.	Average.
1890....	127.5	138.0	157.3	138.2	.....	96.8	101.2	100.3	100.8
1891....	113.6	129.2	120.1	130.6	.....	100.9	140.6	143.4	142.0
1892....	79.2	128.6	97.9	93.8	.....	117.9	113.7	114.2	114.0
1893....	72.0	134.2	113.3	105.5	124.3	157.5	105.0	106.5	105.8
1894....	46.1	95.0	76.9	93.9	111.4	118.2	106.7	104.5	105.6
1895....	67.7	86.0	95.2	84.5	109.2	99.8	102.2	104.4	103.3
1896....	87.2	75.1	67.9	70.7	81.7	71.7	77.5	77.2	77.4
1897....	127.7	70.5	93.2	81.7	86.0	67.4	77.8	75.1	76.5
1898....	154.7	70.3	92.7	100.0	91.8	84.4	84.1	83.2	83.7
1899....	125.3	73.0	85.5	101.0	95.6	85.0	91.1	91.2	91.2
1900....	192.0	67.4	101.3	103.9	104.9	105.5	96.5	97.4	97.0
1901....	221.6	67.8	96.1	109.8	116.0	135.3	114.2	116.8	115.5
1902....	131.7	71.2	112.3	104.5	153.6	161.9	146.4	150.0	148.2
1903....	126.9	62.1	96.3	88.3	129.7	134.1	123.7	125.7	124.7

Year.	Food, etc.										
	Meat.										
	Beef.				Pork.					Mutton, dressed.	Aver- age.
	Fresh, native sides.	Salt, extra mess.	Salt, hams, West- ern.	Aver- age.	Bacon, short clear sides.	Bacon, short rib sides.	Hams, smoked.	Salt, mess, old to new.	Aver- age.		
1890....	89.2	86.8	80.4	85.5	89.3	89.3	101.1	104.4	96.0	123.7	95.5
1891....	106.2	104.4	85.8	98.8	103.6	103.8	99.8	97.2	101.1	114.9	102.0
1892....	98.8	84.8	80.5	88.0	116.6	116.5	109.3	99.1	110.4	121.2	103.4
1893....	105.4	102.2	98.6	102.1	155.3	154.0	126.9	157.6	148.5	106.5	125.8
1894....	97.0	101.0	101.5	99.8	111.3	112.2	103.6	121.4	112.1	80.2	103.5
1895....	102.7	101.4	95.9	100.0	96.3	96.3	96.2	101.7	97.6	82.2	96.6
1896....	90.5	93.7	88.1	90.8	73.2	73.0	95.8	76.8	79.7	82.9	84.3
1897....	99.7	95.7	125.1	106.8	80.1	79.6	90.9	76.6	81.8	96.6	93.0
1898....	101.3	114.2	118.8	111.4	88.3	90.5	82.0	84.8	86.4	98.0	97.2
1899....	108.3	115.9	125.6	116.6	86.4	85.1	93.8	80.3	86.4	94.3	98.7
1900....	104.3	121.7	114.2	113.4	111.4	111.6	104.2	107.5	108.7	96.4	108.9
1901....	102.1	116.3	112.6	110.3	132.0	132.5	109.2	134.2	127.0	89.5	116.1
1902....	125.9	147.1	118.0	130.3	159.0	159.5	123.1	154.2	149.0	97.9	135.6
1903....	101.7	113.1	117.2	110.7	142.1	143.0	129.2	143.1	139.4	98.7	123.5

Year.	Food, etc.										
	Milk: fresh.	Molas- ses: New Orleans, open kettle, prime.	Rice: domes- tic, choice.	Salt.			Soda: bicar- bonate of, Ameri- can.	Spices.			Starch: pure corn.
				Ameri- can.	Ash- ton's.	Aver- age.		Nut- megs.	Pepper, Singa- pore.	Aver- age.	
1890....	103.1	112.4	107.8	112.5	111.9	112.2	131.6	146.2	153.7	150.0	99.6
1891....	104.7	88.5	113.5	111.7	108.1	109.9	151.7	140.7	116.6	128.7	109.5
1892....	105.1	101.2	101.4	107.5	107.8	107.7	104.3	123.1	92.0	107.6	109.5
1893....	109.4	106.2	81.8	99.6	105.5	102.6	136.4	106.1	79.4	92.8	109.5
1894....	103.1	98.1	93.8	102.1	101.6	101.9	128.2	92.5	68.9	80.7	103.5
1895....	99.2	97.8	95.0	99.6	93.0	96.3	84.7	91.8	66.4	79.1	101.1
1896....	91.8	103.0	92.5	88.4	93.0	90.7	72.7	83.1	66.8	75.0	93.6
1897....	92.2	83.1	96.6	93.9	93.0	93.5	71.8	77.6	88.7	83.2	91.2
1898....	93.7	97.8	108.4	94.4	93.0	93.7	61.7	72.7	119.0	95.9	91.2
1899....	99.2	111.9	108.2	90.4	93.0	91.7	56.0	66.4	149.1	107.8	91.2
1900....	107.5	151.5	97.7	142.1	93.0	117.6	58.9	60.2	172.4	116.3	91.2
1901....	102.7	120.1	97.7	121.6	99.0	110.3	51.2	54.3	172.5	113.4	85.8
1902....	112.9	115.5	99.6	90.3	101.0	95.7	51.7	46.9	167.6	107.3	80.3
1903....	112.9	112.5	100.9	87.2	102.0	94.6	61.7	66.6	172.1	119.4	92.5

a Average for 1893-1899=100.



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Food, etc.										
	Sugar.				Tallow.	Tea: For- mosa, fine.	Vegetables, fresh.			Vine- gar: cider, Mon- arch.	Aver- age, food, etc.
	89° fair refin- ing.	96° cen- trifug- al.	Granu- lated.	Aver- age.			Onions.	Pota- toes, Bur- bank.	Aver- age.		
1890....	143.9	141.1	130.5	138.5	105.7	96.3	127.8	119.3	123.6	105.4	112.4
1891....	101.8	101.1	99.7	100.9	111.0	99.2	121.3	154.9	138.1	121.8	115.7
1892....	84.5	85.7	92.1	87.4	106.4	106.0	106.0	91.1	98.6	111.1	103.6
1893....	94.3	95.1	102.3	97.2	125.1	101.7	93.8	134.5	114.2	101.5	110.2
1894....	81.2	83.5	87.0	83.9	110.3	98.0	95.6	122.8	109.2	101.5	99.8
1895....	85.2	84.1	87.9	85.7	99.8	95.1	91.6	86.7	89.2	98.1	94.6
1896....	93.9	93.7	95.9	94.5	78.9	91.0	57.3	39.4	48.4	88.0	83.8
1897....	90.6	92.1	95.1	92.6	76.3	98.6	115.5	65.7	90.6	88.0	87.7
1898....	109.2	109.5	105.2	108.0	81.8	104.2	96.2	102.1	99.2	89.6	94.4
1899....	115.4	114.3	104.2	111.3	104.1	109.8	94.8	83.6	89.2	94.7	98.3
1900....	119.2	118.2	112.8	116.7	111.5	104.9	71.4	74.9	73.2	91.3	104.2
1901....	103.6	104.4	106.8	104.9	119.1	100.4	103.0	113.0	108.0	89.6	105.9
1902....	89.3	91.5	94.2	91.7	144.6	106.2	107.2	119.4	113.3	95.3	111.3
1903....	95.0	96.1	98.2	96.4	117.2	80.9	104.9	105.2	105.1	88.0	107.1

Year.	Cloths and clothing.										
	Bags: 2-bu., Amos- keag.	Blankets.				Boots and shoes.					
		11-4, all wool.	11-4, cotton warp, all wool filling.	11-4, cotton warp, cotton and wool filling.	Aver- age.	Men's bro- gans, split.	Men's calf bal. shoes, Good- year welt.	Men's split boots, etc.	Men's vici kid shoes, Good- year welt.	Wom- en's solid grain shoes.	Aver- age.
1890....	113.9	108.3	106.0	108.5	107.6	106.1	101.0	104.0	108.7	104.0	104.8
1891....	111.7	106.0	106.0	108.5	106.8	106.1	101.0	104.0	108.7	97.9	103.5
1892....	110.8	107.1	104.4	101.4	104.3	104.9	101.0	104.0	108.7	94.8	102.7
1893....	106.8	107.1	104.4	99.1	103.5	102.3	101.0	100.9	108.7	91.7	100.9
1894....	91.1	101.2	89.7	96.7	95.9	97.9	101.0	97.9	108.7	91.7	99.4
1895....	82.2	89.3	88.1	94.3	90.6	99.2	101.0	91.7	97.8	104.0	98.7
1896....	91.6	89.3	91.4	94.3	91.7	100.4	101.0	94.8	97.8	104.0	99.6
1897....	92.9	89.3	106.0	99.1	98.1	96.0	101.0	97.9	87.0	104.0	97.2
1898....	95.6	107.1	102.0	99.1	102.7	92.2	97.6	100.9	87.0	104.0	96.3
1899....	103.4	95.2	102.0	99.1	98.8	94.8	94.3	104.0	87.0	104.0	96.8
1900....	112.6	107.1	122.3	123.8	117.7	94.8	94.3	110.1	87.0	110.6	99.4
1901....	101.0	101.2	106.0	112.0	106.4	95.4	96.8	112.4	87.0	104.5	99.2
1902....	102.4	101.2	106.0	112.0	106.4	94.1	96.8	111.1	87.0	105.5	98.9
1903....	104.2	110.1	114.2	117.9	114.1	93.5	98.9	113.1	87.0	108.6	100.2

Year.	Cloths and clothing.								
	Broad- cloths: first quality, black, 54-inch, XXX wool.	Calico: Cochecho prints.	Carpets.				Cotton flannels.		
			Brussels, 5-frame, Bigelow.	Ingrain, 2-ply, Lowell.	Wilton, 5-frame, Bigelow.	Average.	2¼ yards to the pound.	3½ yards to the pound.	Average.
1890....	113.7	117.5	103.1	108.6	104.2	105.3	123.9	119.7	121.8
1891....	113.7	104.0	112.7	116.2	109.4	112.8	123.9	119.7	121.8
1892....	113.7	117.5	103.1	106.1	104.2	104.5	118.7	113.0	115.9
1893....	113.7	113.0	98.3	111.1	104.2	104.5	102.7	100.0	101.4
1894....	91.2	99.5	93.5	98.5	104.2	98.7	95.6	95.7	95.7
1895....	79.7	94.9	93.5	88.4	91.1	91.0	92.1	91.8	91.7
1896....	79.7	94.9	93.5	85.9	91.1	90.2	92.1	95.7	93.9
1897....	98.2	90.4	95.9	90.9	93.8	93.5	81.4	95.7	88.6
1898....	98.2	81.4	103.1	98.5	99.0	100.2	81.4	80.5	81.0
1899....	98.2	87.3	103.1	96.0	99.0	99.4	87.7	88.3	88.0
1900....	108.0	94.9	103.1	103.5	101.6	102.7	104.5	98.6	101.6
1901....	110.3	90.4	103.1	101.0	101.6	101.9	90.7	100.0	95.4
1902....	110.3	90.4	103.5	101.9	102.2	102.5	92.1	100.0	96.1
1903....	110.3	91.1	108.7	108.1	108.9	108.6	104.1	109.4	106.8

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.								
	Cotton thread: 6-cord, 200-yard spools, J. & P. Coats.	Cotton yarns.			Denims: Amos-keag.	Drillings.			Flannels: white, 4-4, Ballard Vale No. 3.
		Carded, white, mule-spun, Northern, cones, 10/1.	Carded, white, mule-spun, Northern, cones, 22/1.	Average.		Brown, Pepperell.	30-inch, Stark A.	Average.	
1890....	101.6	111.3	112.1	111.7	112.5	119.4	122.8	121.1	116.8
1891....	100.7	111.6	114.0	112.8	109.6	114.0	115.2	114.6	116.8
1892....	100.7	117.2	116.8	117.0	109.6	101.7	102.7	102.2	115.9
1893....	100.7	112.4	108.6	110.5	112.5	103.1	108.1	105.6	109.5
1894....	100.7	94.7	91.2	93.0	105.4	97.7	96.4	97.1	94.1
1895....	100.7	91.9	92.2	92.1	94.6	92.5	93.9	93.2	91.7
1896....	99.6	92.2	93.7	93.0	94.6	100.2	100.2	100.2	85.4
1897....	98.4	90.3	90.8	90.6	89.2	91.8	88.9	90.4	82.6
1898....	98.4	90.5	91.0	90.8	85.9	89.7	83.9	86.8	97.8
1899....	98.4	87.6	89.4	88.5	85.8	89.2	87.7	88.5	99.5
1900....	120.1	115.0	115.9	115.5	102.8	105.9	104.0	105.0	108.7
1901....	120.1	98.6	97.9	98.3	100.2	102.3	102.1	102.2	100.8
1902....	120.1	95.6	92.4	94.0	100.6	100.5	103.5	102.0	105.8
1903....	120.1	116.2	109.5	112.9	108.0	108.2	111.5	109.9	114.3

Year.	Cloths and clothing.								
	Ginghams.			Horse blankets: 6 pounds each, all wool.	Hosiery.				
	Amos-keag.	Lan-caster.	Average.		Men's cotton half hose, seamless, fast black, 20 to 22 oz.	Men's cotton half hose, seamless, 84 needles.	Women's combed Egyptian cotton hose, high spliced heel. (a)	Women's cotton hose, seamless, fast black, 26 to 28 oz.	Average.
1890....	117.3	120.8	119.1	109.1	133.3	124.3	.....	131.6	129.7
1891....	122.0	122.2	122.1	104.7	123.1	124.3	.....	121.1	122.8
1892....	122.0	122.2	122.1	109.1	112.8	123.6	.....	115.8	117.4
1893....	118.4	111.3	114.9	104.7	110.3	111.5	102.7	113.2	109.4
1894....	91.0	88.0	89.5	96.0	102.6	92.4	102.7	105.3	100.8
1895....	87.4	86.6	87.0	92.5	94.9	89.2	101.4	92.1	94.4
1896....	88.6	87.3	88.0	90.8	87.2	89.2	101.4	84.2	90.5
1897....	82.2	86.2	84.2	99.5	82.1	82.9	100.0	81.6	86.7
1898....	80.9	85.2	83.1	99.5	76.9	82.9	97.3	76.3	83.4
1899....	89.5	89.9	89.7	94.2	76.9	79.7	94.6	78.9	82.5
1900....	96.6	96.0	96.3	118.7	82.1	82.9	102.7	81.6	87.3
1901....	91.9	92.7	92.3	109.9	71.8	92.4	108.1	71.1	85.9
1902....	98.1	100.3	99.2	109.9	76.9	85.0	100.0	78.9	85.2
1903....	103.2	100.3	101.8	117.8	82.1	90.0	101.4	86.8	90.1

Year.	Cloths and clothing.								
	Leather.					Linen thread.			
	Harness, oak.	Sole, hemlock, non-acid, Buenos Ayres.	Sole, oak.	Wax calf, 30 to 40 lbs. to the dozen, B grade.	Average.	Shoe, 10s, Barbour.	3-cord, 200-yard spools, Barbour.	Average.	
1890....	99.3	99.1	112.1	91.7	100.6	101.9	104.6	103.3	
1891....	99.6	95.8	109.4	98.8	100.9	101.9	93.2	97.6	
1892....	91.4	89.1	101.7	105.9	97.0	101.9	94.1	98.0	
1893....	92.7	92.6	103.6	98.5	96.9	102.8	97.5	100.2	
1894....	87.8	88.4	97.5	92.3	91.5	105.0	99.9	102.5	
1895....	111.5	106.9	101.7	112.0	108.0	97.3	99.9	98.6	
1896....	98.6	97.0	87.0	98.3	95.2	97.3	99.9	98.6	
1897....	93.9	104.8	91.6	94.1	96.1	97.3	101.8	99.6	
1898....	109.1	109.8	95.5	103.3	104.4	97.3	104.6	101.0	
1899....	116.0	116.2	99.9	105.0	109.3	97.3	104.6	101.0	
1900....	116.8	128.4	107.3	100.3	113.2	101.5	104.6	103.1	
1901....	114.7	127.6	104.8	96.0	110.8	101.9	104.6	103.3	
1902....	114.7	122.1	113.0	100.9	112.7	101.9	104.6	103.3	
1903....	114.3	116.9	111.3	105.4	112.0	96.7	98.2	97.5	

<sup>a</sup>Average for 1893-1899=100.



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.							
	Overcoatings.						Print cloths: 28-inch, 64 x 64.	Shawls: standard, all wool, 72 x 144 in., 42-oz.
	Beaver, Moscow, all wool, black.	Chinchilla, B-rough, all wool.	Chinchilla, cotton warp, C. C. grade.	Covert cloth, light weight, staple.	Kersey, standard, 27 to 28 oz. (a)	Aver- age.		
1890....	116.7	113.4	109.1	105.7	.....	111.2	117.7	107.0
1891....	116.7	113.4	107.7	105.7	.....	110.9	103.5	107.0
1892....	116.7	113.4	109.1	105.7	.....	111.2	119.3	107.0
1893....	111.7	108.5	109.9	105.7	.....	109.0	114.6	107.0
1894....	95.5	92.8	96.9	104.2	.....	97.4	96.8	107.0
1895....	84.9	87.7	92.3	99.9	.....	91.2	100.9	107.0
1896....	84.9	87.7	89.2	87.4	.....	87.3	90.9	89.1
1897....	84.9	87.7	93.7	83.6	94.9	89.0	87.6	89.5
1898....	89.4	97.7	98.3	97.2	104.2	97.4	72.6	90.2
1899....	98.7	97.7	93.9	104.9	100.9	99.2	96.3	89.1
1900....	120.1	116.7	100.2	101.4	126.3	112.9	108.6	107.0
1901....	106.1	97.7	90.8	97.2	120.3	102.4	99.3	107.0
1902....	106.1	97.7	92.3	97.2	120.3	102.7	108.9	107.0
1903....	117.3	103.1	92.8	94.0	126.3	106.7	113.3	107.0

Year.	Cloths and clothing.									
	Sheetings.									Aver- age.
	Bleached.				Brown.					
	10-4, At- lantic.	10-4, Pepper- cll.	10-4, Wam- sutta S. T.	Aver- age.	4-4, At- lantic A.	4-4, In- dian Head.	4-4, Pep- perell R.	4-4, Stark A. A.	Aver- age.	
1890....	122.1	116.2	106.0	114.8	121.0	115.8	116.2	125.7	119.7	117.6
1891....	116.4	106.6	107.2	110.1	118.1	116.1	108.3	113.1	113.9	112.3
1892....	108.7	100.8	99.8	103.1	106.7	103.5	103.3	103.8	104.3	103.8
1893....	111.8	103.3	103.6	106.2	111.9	108.5	105.8	109.3	108.9	107.7
1894....	94.8	92.5	93.5	93.6	99.3	95.5	96.4	99.2	97.6	95.9
1895....	93.8	94.7	92.2	93.6	94.0	93.5	96.0	97.7	95.3	94.6
1896....	92.6	95.1	99.2	95.6	96.7	99.4	101.3	97.3	98.7	97.4
1897....	87.4	92.3	99.2	93.0	88.6	93.9	95.3	86.1	91.0	91.8
1898....	83.2	91.3	99.2	91.2	80.1	86.3	86.2	80.8	83.4	86.7
1899....	89.4	107.3	100.1	98.9	84.3	86.9	91.5	85.9	87.2	92.2
1900....	111.3	121.7	104.3	112.4	100.4	99.5	107.4	96.8	101.0	105.9
1901....	100.9	112.4	99.2	104.2	98.0	100.8	107.4	94.1	100.1	101.8
1902....	104.4	111.5	99.2	105.0	99.3	99.8	103.3	<i>b</i> 92.6	98.8	101.4
1903....	115.7	120.8	103.0	113.2	115.0	108.8	108.7	<i>b</i> 101.9	108.6	110.6

Year.	Cloths and clothing.								
	Shirtings: bleached.						Silk: raw.		
	4-4, Fruit of the Loom.	4-4, Hope.	4-4, Lons- dale.	4-4, New York Mills.	4-4, Wam- sutta < o > XX .	Average.	Italian, classical.	Japan, filatures.	Average.
1890....	116.1	115.2	116.2	110.5	106.6	112.9	122.7	130.5	126.6
1891....	109.8	111.6	113.1	110.2	106.4	110.2	98.4	99.8	99.1
1892....	111.0	105.2	111.7	106.3	102.6	107.4	105.3	107.7	106.5
1893....	114.3	113.2	114.4	105.6	103.5	110.2	118.2	113.0	115.6
1894....	99.9	98.4	100.0	101.0	100.2	99.9	86.5	83.7	85.1
1895....	96.2	96.5	95.9	97.1	102.2	97.6	94.9	94.2	94.6
1896....	95.6	98.4	94.2	101.0	100.3	97.9	85.3	84.8	85.1
1897....	88.0	91.1	87.1	95.4	98.6	92.0	85.5	86.2	85.9
1898....	80.2	82.2	81.8	89.5	85.1	83.8	91.1	90.5	90.8
1899....	88.5	87.5	86.1	82.8	94.1	87.8	112.1	109.7	110.9
1900....	103.4	106.5	100.6	89.7	101.8	100.4	106.0	103.7	104.9
1901....	103.0	111.0	101.5	86.8	92.3	98.9	90.4	87.4	88.9
1902....	103.8	107.3	101.9	87.4	93.4	98.8	96.5	95.1	95.8
1903....	105.4	107.1	103.9	97.0	102.7	103.2	106.3	102.9	104.6

<sup>a</sup>Average for 1897-1899=100.  
<sup>b</sup>Sheetings: brown, 4-4, Massachusetts Mills, Flying Horse brand. For method of computing relative price see pages 241 and 242.

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Cloths and clothing.							
	Suits.							Tickings: Amos- keag A. C. A.
	Clay worsted diagonal, 12-oz., Wash. Mills. (a)	Clay worsted diagonal, 16-oz., Wash. Mills. (a)	Indigo blue, all wool, 54-inch, 14- ounce, Middlesex.	Indigo blue, all wool, 16- ounce.	Serge, Washing- ton Mills 6700. (b)	Trouserings, fancy worsted. (b)	Aver- age.	
1890....			116.9	109.2			113.1	113.1
1891....			116.9	109.2			113.1	110.7
1892....			116.9	109.2	120.9	106.6	113.4	108.4
1893....			114.0	109.2	120.9	106.6	112.7	111.3
1894....			111.1	92.3	90.7	98.9	98.3	102.2
1895....	92.5	93.8	87.1	83.0	90.7	87.9	89.2	94.8
1896....	89.1	87.6	86.0	89.9	81.6	92.3	87.8	96.0
1897....	92.2	93.3	79.1	87.4	87.7	92.3	88.7	91.9
1898....	111.3	111.4	86.0	103.2	99.8	108.9	103.4	84.3
1899....	114.9	113.9	86.0	107.2	107.7	106.6	106.1	87.0
1900....	131.4	133.7	86.0	118.4	107.6	117.6	115.8	102.2
1901....	110.6	111.0	89.6	109.2	106.6	102.2	104.9	95.5
1902....	110.9	108.6	99.2	109.2	105.1	101.8	105.8	99.0
1903....	115.2	112.1	108.8	112.6	100.4	104.6	109.0	104.1

Year.	Cloths and clothing.									
	Underwear.			Women's dress goods.						
	Shirts and drawers, white, all wool, etc.	Shirts and drawers, white, merino, 52% wool, etc.	Aver- age.	Alpaca, cotton warp, 22-inch, Hamil- ton.	Cash- mere, all wool, 10-11 twill, 38-in., Atlantic J.	Cash- mere, cotton warp, 9-twill, 4-4, Atlantic F.	Cash- mere, cotton warp, 22-inch, Hamil- ton.	Cash- mere, cotton warp, 27-inch, Hamil- ton.	Frank- lin sack- ings, 6-4.	Aver- age.
1890....	106.2	106.9	106.6	108.1	119.8	119.3	109.9	111.0	115.3	113.9
1891....	110.0	112.7	111.4	108.1	126.1	119.3	109.9	111.0	119.9	115.7
1892....	110.0	112.7	111.4	106.3	128.2	117.7	108.3	109.6	119.9	115.0
1893....	110.0	112.7	111.4	104.6	111.8	98.4	106.7	106.1	117.6	107.5
1894....	92.7	95.4	94.1	100.9	84.3	88.7	100.3	102.7	96.8	95.6
1895....	92.7	92.5	92.6	93.7	81.0	83.8	97.0	95.8	84.3	89.3
1896....	92.7	92.5	92.6	93.7	67.5	83.6	93.8	93.0	80.7	85.4
1897....	92.7	92.5	92.6	93.7	82.2	90.3	90.5	88.8	82.2	88.0
1898....	92.7	95.4	94.1	93.7	88.6	94.3	90.5	88.8	88.4	90.7
1899....	100.4	86.7	93.6	96.6	110.4	104.8	93.1	93.0	94.9	98.8
1900....	100.4	95.4	97.9	104.6	119.1	108.0	100.3	99.9	118.3	108.4
1901....	100.4	95.4	97.9	104.6	111.3	104.3	100.3	102.7	104.5	104.6
1902....	100.4	95.4	97.9	103.7	111.3	108.0	99.5	102.0	108.3	105.5
1903....	100.4	95.4	97.9	101.5	114.3	110.5	97.8	101.2	114.5	106.6

Year.	Cloths and clothing.						
	Wool.			Worsted yarns.			Average, cloths and clothing.
	Ohio, fine fleece (X and XX grade), scoured.	Ohio, me- dium fleece ( $\frac{1}{4}$ and $\frac{3}{8}$ grade), scoured.	Average.	2-40s, Aus- tralian fine.	2-40s, XXX, white, in skeins.	Average.	
1890....	129.5	134.6	132.1	120.4	124.1	122.3	113.5
1891....	124.1	127.5	125.8	121.3	125.4	123.4	111.3
1892....	110.7	115.6	113.2	119.6	114.8	117.2	109.0
1893....	102.0	101.2	101.6	111.4	107.6	109.5	107.2
1894....	80.5	77.6	79.1	91.3	91.2	91.3	96.1
1895....	68.2	71.9	70.1	72.9	75.1	74.0	92.7
1896....	71.3	69.8	70.6	71.2	74.5	72.9	91.3
1897....	89.7	87.6	88.7	83.6	81.3	82.5	91.1
1898....	111.3	105.3	108.3	101.2	99.7	100.5	93.4
1899....	112.8	108.8	110.8	107.1	106.3	106.7	96.7
1900....	119.3	116.0	117.7	118.3	118.5	118.4	106.8
1901....	98.7	94.5	96.6	102.2	102.1	102.2	101.0
1902....	104.4	97.2	100.8	110.3	c 113.1	111.7	102.0
1903....	118.5	102.1	110.3	115.6	c 120.4	118.0	106.6

<sup>a</sup> Average for 1895-1899=100.<sup>b</sup> Average for 1892-1899=100.<sup>c</sup> Designated as XXXX.



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Fuel and lighting.										
	Candles: adaman- tine, 6s, 14-oz.	Coal.									
		Anthracite.					Bituminous.				
		Broken.	Chest- nut.	Egg.	Stove.	Aver- age.	Georges Creek (at mine).	Georges Creek (f. o. b. N. Y. Harbor).	Pitts- burg (Yough- io- gheny).	Aver- age.	Aver- age.
1890....	102.3	103.5	93.3	100.6	97.8	98.8	97.1	108.9	103.3	103.1	100.6
1891....	102.3	102.3	96.7	104.4	101.6	101.3	106.9	110.5	122.7	113.4	106.4
1892....	102.3	107.4	109.7	110.8	109.4	109.3	101.3	106.9	116.5	108.2	108.9
1893....	112.9	105.8	115.9	107.2	110.5	109.9	103.6	107.6	117.9	109.7	109.8
1894....	110.9	101.5	98.5	94.3	94.9	97.3	92.4	99.8	98.6	96.9	97.1
1895....	108.7	97.5	82.9	84.3	82.4	86.8	87.2	102.5	93.3	94.3	90.0
1896....	108.7	97.1	98.9	98.8	100.0	98.7	101.3	97.1	89.1	95.8	97.5
1897....	95.3	96.4	103.9	105.7	105.8	103.0	93.8	89.0	88.6	90.5	97.6
1898....	78.4	95.4	98.8	100.2	100.1	98.6	102.7	79.3	87.9	90.0	94.9
1899....	78.4	93.1	101.4	93.8	97.6	96.5	113.9	98.4	82.6	98.3	97.3
1900....	135.4	97.1	108.9	99.7	104.0	102.4	135.0	106.0	117.0	119.3	109.7
1901....	140.7	105.5	120.4	112.9	113.9	113.2	150.5	106.6	117.0	124.7	118.1
1902....	140.7	110.4	124.0	121.5	117.6	118.4	239.1	148.0	122.4	169.8	140.4
1903....	127.4	126.2	134.2	134.3	127.1	130.5	269.6	161.8	143.9	191.8	156.7

Year.	Fuel and lighting.							
	Coke: Con- nellsville, furnace.	Matches: parlor, domestic.	Petroleum.					Average, fuel and lighting.
			Crude.	Refined.			Average.	
				For export.	150° fire test, w. w.	Average.		
1890....	122.7	111.5	95.4	112.9	111.8	112.4	106.7	104.7
1891...	110.4	99.6	73.6	105.5	98.8	102.2	92.6	102.7
1892....	106.5	99.6	61.1	93.8	89.2	91.5	81.4	101.1
1893....	87.1	99.6	70.3	80.4	81.5	81.0	77.4	100.0
1894....	62.3	94.9	92.2	79.4	81.5	80.5	84.4	92.4
1895....	78.0	96.1	149.2	109.6	103.6	106.6	120.8	98.1
1896....	110.4	99.6	129.5	108.2	116.7	112.5	118.1	104.3
1897....	95.2	99.6	86.5	92.0	101.1	96.6	93.2	96.4
1898....	98.8	99.6	100.2	96.8	102.1	99.5	99.7	95.4
1899....	128.7	99.6	142.1	121.9	114.0	118.0	126.0	105.0
1900....	155.8	99.6	148.5	131.6	133.5	132.6	137.9	120.9
1901....	115.6	99.6	132.9	115.4	123.1	119.3	123.8	119.5
1902....	158.2	90.1	135.9	113.1	124.5	118.8	124.5	134.3
1903....	171.5	85.4	174.5	132.5	153.1	142.8	153.4	149.3

Year.	Metals and implements.											
	Bar iron: best refined.			Barb wire: galvan-ized.	Builders' hardware.				Copper.			
	From mill (Pitts-burg mar-ket).	From store (Phila. mar-ket).	Aver-age.		Butts: loose joint, cast, 3x3 in.	Door-knobs: steel, bronze plated.	Locks: com-mon mor-tise.	Aver-age.	Ingot, lake.	Sheet, hot-rolled (base sizes).	Wire, bare.	Aver-age.
1890....	126.9	125.0	126.0	141.2	111.7	97.8	101.6	103.7	127.6	137.1	128.1	130.9
1891....	117.9	115.9	116.9	127.4	111.7	97.8	101.6	103.7	105.8	114.5	112.7	111.0
1892....	113.1	114.0	113.6	109.5	96.8	97.8	101.6	98.7	93.5	96.4	98.2	96.0
1893....	103.4	103.7	103.6	99.7	98.4	97.8	101.6	99.3	88.6	90.4	92.2	90.4
1894....	82.8	81.7	82.3	86.1	95.9	97.8	100.1	97.9	76.8	85.9	79.0	80.6
1895....	86.2	87.8	87.0	88.9	100.3	115.1	102.0	105.8	87.1	85.9	84.6	85.9
1896....	84.1	85.4	84.8	77.7	104.1	102.1	106.1	104.1	88.9	85.9	92.6	89.1
1897....	75.9	79.9	77.9	71.3	96.8	97.8	102.0	98.9	91.7	88.2	93.9	91.3
1898....	73.8	78.0	75.9	72.7	92.4	97.8	91.8	94.0	96.8	84.4	93.9	91.7
1899....	134.5	126.2	130.4	125.5	92.4	97.8	91.8	94.0	143.2	131.1	124.7	133.0
1900....	148.3	119.5	133.9	134.4	126.6	106.8	96.5	110.0	134.6	124.6	123.0	127.4
1901....	124.1	112.2	118.2	120.2	116.8	112.0	91.8	106.9	136.7	125.9	124.0	128.9
1902....	133.8	129.9	131.9	116.9	126.6	126.9	104.0	119.2	97.3	107.5	90.6	98.5
1903....	122.1	122.0	122.1	108.4	126.6	132.6	110.2	123.1	110.9	115.6	102.3	109.6

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Metals and implements.									
	Lead: pig.	Lead pipe.	Nails.			Pig iron.				
			Cut, 8-penny, fence and common.	Wire, 8-penny, fence and common.	Aver- age.	Besse- mer.	Foundry No. 1.	Foundry No. 2.	Gray forge, South- ern, coke.	Aver- age.
1890....	115.5	112.1	125.2	137.1	131.2	137.0	124.3	131.4	130.8	130.9
1891....	116.7	116.2	100.3	114.1	107.2	115.8	118.4	117.9	112.9	116.3
1892....	108.4	107.6	96.2	101.3	98.8	104.3	106.4	105.5	106.3	105.6
1893....	98.2	103.8	92.0	92.1	92.1	93.4	98.1	95.3	95.9	95.7
1894....	86.9	92.0	83.6	76.4	80.0	82.6	85.5	83.1	80.6	83.0
1895....	85.6	87.2	105.3	98.0	101.7	92.3	88.5	89.4	93.1	90.8
1896....	78.7	85.1	148.4	135.3	141.9	88.1	87.5	90.2	86.6	88.1
1897....	94.0	89.6	72.9	68.7	70.8	73.5	81.7	77.4	79.4	78.0
1898....	99.7	95.5	65.3	66.5	65.9	75.0	78.8	76.8	78.6	77.3
1899....	117.6	111.0	110.8	110.4	110.6	138.1	130.8	132.9	135.8	134.4
1900....	116.8	106.3	123.1	121.8	122.5	141.5	135.0	141.8	140.7	139.8
1901....	115.0	104.8	115.6	109.4	112.5	115.7	107.2	112.8	113.2	112.2
1902....	107.9	108.3	116.7	97.3	107.0	150.0	149.9	162.7	158.8	155.4
1903....	112.3	107.8	120.2	96.0	108.1	137.7	134.5	146.6	146.4	141.3

Year.	Metals and implements.									
	Quick- silver.	Silver: bar, fine.	Spelter: Western.	Steel billets.	Steel rails.	Steel sheets: black, No. 27. (a)	Tin: pig.	Tin plates.		
								Domes- tic, Bes- semer, coke, 14x20. (b)	Import- ed, Bes- semer, coke, I.C., 14x20. (c)	Aver- age.
1890....	130.5	140.6	122.6	141.5	121.9	.....	115.5	.....	104.6	104.6
1891....	112.3	132.2	112.4	117.7	114.8	.....	110.3	.....	116.4	116.4
1892....	100.9	116.9	102.9	109.8	115.1	.....	110.9	.....	115.7	115.7
1893....	93.2	104.4	90.7	94.9	107.9	.....	109.0	.....	117.1	117.1
1894....	85.7	85.5	78.5	77.0	92.1	104.9	98.7	.....	106.7	106.7
1895....	91.8	88.5	80.1	85.9	93.4	108.9	76.5	.....	84.4	84.4
1896....	89.0	91.0	88.7	87.5	107.4	96.0	72.4	100.6	82.9	91.8
1897....	92.2	81.1	93.1	70.1	71.9	87.1	74.0	93.2	85.1	89.2
1898....	97.0	78.9	100.2	71.1	67.6	84.8	84.5	83.5	87.2	85.4
1899....	107.3	80.8	130.1	144.6	107.9	119.2	148.2	122.7	(d)	122.7
1900....	121.0	82.9	97.8	116.4	123.9	130.8	163.7	137.0	(d)	137.0
1901....	118.5	79.7	89.6	112.1	104.9	140.6	142.6	122.7	(d)	122.7
1902....	115.5	70.5	107.7	142.1	107.4	129.9	144.2	120.7	(d)	120.7
1903....	113.4	72.4	123.5	129.7	107.4	116.1	153.4	115.4	(d)	115.4

Year.	Metals and implements.								
	Tools.								
	Augers: extra, ¾-inch.	Axes: M. C. O., Yankee.	Chisels: extra, socket firmer, 1-inch.	Files: 8- inch mill bastard.	Hammers: Maydole No. 1¼.	Planes: Bailey No. 5.	Saws.		
Crosscut, Disston.							Hand, Disston No. 7.	Average.	
1890....	118.2	120.4	110.9	106.7	96.9	107.4	100.0	112.7	106.4
1891....	118.2	118.3	110.9	104.6	96.9	107.4	100.0	98.6	99.3
1892....	118.2	106.5	110.9	102.2	96.9	107.4	100.0	98.6	99.3
1893....	111.9	106.5	102.1	101.6	96.9	107.4	100.0	98.6	99.3
1894....	95.9	100.9	91.5	97.3	96.9	104.3	100.0	98.6	99.3
1895....	82.9	98.0	90.3	95.4	97.6	93.9	100.0	98.6	99.3
1896....	86.7	88.4	94.7	91.2	105.2	93.0	100.0	98.6	99.3
1897....	88.6	83.9	90.3	94.4	105.2	93.0	100.0	98.6	99.3
1898....	88.6	79.9	90.8	96.8	100.6	93.0	100.0	98.6	99.3
1899....	91.1	97.1	107.6	109.7	107.0	93.0	100.0	98.6	99.3
1900....	124.4	102.9	127.6	127.8	115.9	107.0	100.0	98.6	99.3
1901....	105.7	88.8	121.4	123.1	117.2	110.4	100.0	98.6	99.3
1902....	111.9	103.0	142.6	123.1	117.2	114.2	100.0	98.6	99.3
1903....	143.7	107.6	147.8	123.1	129.0	115.7	100.0	98.6	99.3

a Average for the period July, 1894, to December, 1899=100.

b Average for 1896-1899=100.

c Average for 1890-1898=100.

d No quotation for year.



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Metals and implements.						
	Tools.				Wood screws: 1-inch, No. 10, flat head.	Zinc: sheet.	Average, metals and implements.
	Shovels: Ames No. 2.	Trowels: M. C. O., brick, 10½ inch.	Vises: solid box, 50- pound.	Average.			
1890....	100.1	100.0	106.1	107.2	130.5	114.0	119.2
1891....	100.1	100.0	106.1	105.6	132.5	107.7	111.7
1892....	100.1	100.0	109.1	104.5	139.1	103.4	106.0
1893....	100.1	100.0	107.6	103.0	139.1	94.0	100.7
1894....	94.7	100.0	104.0	98.6	103.2	74.4	90.7
1895....	94.7	100.0	97.2	95.3	74.0	85.1	92.0
1896....	99.3	100.0	95.4	95.7	68.4	93.0	93.7
1897....	100.8	100.0	89.7	95.0	56.3	93.0	86.6
1898....	100.8	100.0	84.1	93.9	60.8	103.5	86.4
1899....	109.4	100.0	100.7	101.3	96.2	131.9	114.7
1900....	115.9	100.0	109.4	111.8	120.5	114.8	120.5
1901....	115.9	100.0	128.7	110.0	69.2	104.7	111.9
1902....	118.9	100.0	131.5	114.6	63.0	107.9	117.2
1903....	102.0	100.0	132.7	118.2	72.4	113.3	117.6

Year.	Lumber and building materials.							
	Brick: common domestic.	Carbonate of lead: American, in oil.	Cement.			Doors: pine.	Lime: common.	Linseed oil: raw.
			Portland, domestic. (a)	Rosendale.	Average.			
1890....	118.0	110.6	.....	118.8	118.8	125.8	117.5	135.8
1891....	102.6	112.7	.....	106.2	106.2	114.4	109.5	106.8
1892....	103.7	114.0	.....	109.2	109.2	114.4	111.5	90.0
1893....	104.9	105.5	.....	100.0	100.0	112.1	111.5	102.2
1894....	89.9	90.8	.....	104.5	104.5	96.1	101.8	115.6
1895....	95.5	91.0	98.6	96.1	97.4	83.5	93.8	115.6
1896....	91.0	89.6	100.2	93.9	97.1	76.6	83.3	81.2
1897....	88.8	92.7	98.5	84.8	91.7	74.3	86.3	72.2
1898....	103.4	94.1	100.1	85.7	92.9	84.6	89.0	86.5
1899....	102.2	98.4	102.6	100.8	101.7	118.2	95.8	94.1
1900....	94.4	108.3	108.1	114.6	111.4	145.5	82.0	138.7
1901....	103.7	99.8	94.7	114.8	104.8	173.1	92.9	140.0
1902....	96.8	93.4	97.7	97.5	97.6	194.1	96.7	130.8
1903....	106.2	106.6	101.6	100.3	101.0	158.2	94.5	91.9

Year.	Lumber and building materials.									
	Lumber.									
	Hem- lock.	Maple: hard.	Oak: white.			Pine.				
			Plain.	Quar- tered.	Aver- age.	White, boards.			Yellow.	Average.
						No. 2 barn.	Uppers.	Aver- age.		
1890....	105.2	100.0	101.2	95.9	98.6	98.1	94.7	96.4	112.4	101.7
1891....	104.1	100.0	101.5	99.8	100.7	99.4	96.7	98.1	108.1	101.4
1892....	102.8	100.0	102.7	98.7	100.7	100.2	98.9	99.6	100.2	99.8
1893....	100.3	100.0	103.5	98.7	101.1	108.9	104.2	106.6	100.2	104.4
1894....	97.9	100.0	99.5	95.2	97.4	106.2	99.7	103.0	100.2	102.0
1895....	93.2	100.0	96.8	99.2	98.0	100.8	98.8	99.8	91.6	97.1
1896....	93.3	100.0	96.8	101.5	99.2	96.4	100.2	98.3	88.9	95.2
1897....	92.0	100.0	96.8	100.3	98.6	92.5	99.5	96.0	89.0	93.7
1898....	98.2	100.0	96.8	97.8	97.3	90.6	99.0	94.8	100.9	96.8
1899....	113.0	100.1	104.1	112.7	108.4	106.9	108.4	107.7	108.5	107.9
1900....	137.9	103.8	109.1	120.1	114.6	125.7	123.5	124.6	112.2	120.5
1901....	125.4	100.8	98.2	110.2	104.2	122.0	129.8	125.9	106.5	119.4
1902....	132.4	107.8	109.2	117.5	113.4	137.3	160.7	149.0	113.7	137.2
1903....	140.4	119.5	119.8	139.3	129.6	140.3	171.8	156.1	113.7	141.9

a Average for 1895-1899=100.

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Lumber and building materials.								
	Lumber.			Oxide of zinc.	Plate glass: polished, unsilvered.			Putty.	Resin: good, strained.
	Poplar.	Spruce.	Average.		Area 3 to 5 sq. ft.	Area 5 to 10 sq. ft.	Average.		
1890....	97.2	113.5	102.0	106.3	146.0	134.9	140.5	110.8	96.1
1891....	97.2	99.1	100.7	104.8	143.3	132.9	138.1	110.8	102.4
1892....	97.6	103.5	100.5	106.5	115.7	106.0	110.9	101.9	93.2
1893....	107.2	96.0	102.1	103.3	115.7	106.0	110.9	101.3	87.6
1894....	101.2	88.6	98.7	93.3	90.9	86.7	88.8	99.4	86.9
1895....	98.8	99.3	97.6	87.5	82.6	92.5	87.6	91.8	108.4
1896....	98.8	99.3	97.2	95.8	93.7	104.0	98.9	91.8	121.2
1897....	97.8	97.6	96.2	94.3	55.1	61.7	58.4	91.8	112.0
1898....	95.6	95.8	97.2	99.0	74.4	82.9	78.7	91.8	98.7
1899....	108.5	107.3	107.7	109.5	82.6	92.5	87.6	106.3	93.5
1900....	120.2	121.1	119.3	112.8	93.7	104.0	98.9	120.3	111.3
1901....	117.0	125.4	115.0	109.5	88.2	94.4	91.3	94.9	106.3
1902....	134.2	134.2	127.4	110.0	70.9	79.2	75.1	121.5	112.0
1903....	158.3	133.7	137.4	115.8	72.3	83.1	77.7	89.2	153.9

Year.	Lumber and building materials.								Average, lumber and building materi- als.
	Shingles.			Tar.	Turpen- tine: spirits of.	Window glass: American, single.			
	Cypress.	White pine.	Average.			Firsts, 6 x 8 to 10 x 15 inch.	Thirds, 6 x 8 to 10 x 15 inch.	Average.	
1890....	118.7	102.6	110.7	122.4	122.0	103.6	98.2	100.9	111.8
1891....	115.2	106.9	111.1	131.4	113.5	102.8	97.3	100.1	108.4
1892....	111.7	104.4	108.1	107.9	96.5	92.7	87.7	90.2	102.8
1893....	106.3	102.8	104.6	86.8	89.8	99.4	94.0	96.7	101.9
1894....	99.2	100.2	99.7	90.6	87.7	92.6	89.8	91.2	96.3
1895....	93.9	98.8	96.4	94.8	87.4	74.3	76.5	75.4	94.1
1896....	88.6	96.5	92.6	84.0	82.1	83.8	88.0	85.9	93.4
1897....	83.3	94.6	89.0	87.5	87.5	102.2	107.9	105.1	90.4
1898....	88.6	94.9	91.8	91.1	96.4	122.9	128.8	125.9	95.8
1899....	94.4	98.3	96.4	103.4	137.0	125.9	131.9	128.9	105.8
1900....	101.0	106.9	104.0	113.1	142.7	125.5	127.5	126.5	115.7
1901....	101.0	111.9	106.5	106.4	111.5	191.9	180.4	186.2	116.7
1902....	94.7	123.0	108.9	110.0	141.8	149.6	141.0	145.3	118.8
1903....	91.0	125.1	108.1	139.4	171.0	122.7	118.7	120.7	121.4

Year.	Drugs and chemicals.									
	Alcohol: grain, 94 per cent.	Alcohol: wood, refined, 95 per cent.	Alum: lump.	Brim- stone: crude, seconds.	Glycer- in: refined.	Muriatic acid: 20°.	Opium: natural, in cases.	Quinine: Ameri- can.	Sul- phuric acid: 66°.	Average, drugs and chemi- cals.
1890....	92.5	119.2	109.0	102.2	126.3	100.0	111.0	133.1	98.9	110.2
1891....	98.9	121.6	94.6	138.2	109.9	94.2	82.4	102.0	91.0	103.6
1892....	95.6	136.0	95.8	116.7	99.8	116.3	70.8	88.7	106.7	102.9
1893....	97.3	135.4	104.2	90.5	96.2	97.1	101.3	87.4	95.5	100.5
1894....	96.1	75.5	101.2	80.1	85.3	84.6	96.8	106.5	82.0	89.8
1895....	104.0	90.9	95.8	75.5	86.1	79.8	78.0	102.0	78.7	87.9
1896....	102.7	89.1	98.2	86.8	119.4	72.1	88.6	97.8	78.7	92.6
1897....	101.6	72.9	99.4	97.2	93.5	104.8	99.2	74.3	106.7	94.4
1898....	103.8	78.6	98.8	110.7	88.5	123.1	141.6	87.2	127.0	106.6
1899....	107.6	80.8	100.6	102.1	95.0	129.8	130.2	120.9	134.8	111.3
1900....	106.5	83.9	104.8	102.2	108.3	129.8	135.6	135.2	134.8	115.7
1901....	109.7	64.2	104.8	106.3	107.5	144.2	136.8	123.0	140.4	115.2
1902....	107.4	67.3	104.8	113.2	103.2	161.5	120.0	104.7	146.1	114.2
1903....	106.9	62.0	103.6	107.9	103.4	153.8	130.6	102.6	142.7	112.6



TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Continued.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	House furnishing goods.								
	Earthenware.				Furniture.				
	Plates, cream-colored.	Plates, white granite.	Teacups and saucers, white granite.	Average.	Bedroom sets, ash.	Chairs, bedroom, maple.	Chairs, kitchen.	Tables, kitchen.	Average.
1890....	108.0	109.1	109.6	108.9	113.7	113.0	109.8	103.9	110.1
1891....	105.6	106.9	107.4	106.6	113.7	113.0	109.8	103.9	110.1
1892....	102.3	103.7	104.2	103.4	113.7	110.6	111.1	103.9	109.8
1893....	102.3	103.7	104.2	103.4	104.2	110.6	111.1	103.9	107.5
1894....	101.0	101.9	102.8	101.9	104.2	96.9	91.5	98.7	97.8
1895....	94.6	92.9	94.4	94.0	94.3	96.9	91.5	98.7	95.4
1896....	92.0	89.1	90.1	90.4	82.9	96.9	91.5	95.6	91.7
1897....	92.0	89.1	90.1	90.4	82.9	80.7	91.5	95.6	87.7
1898....	100.4	100.8	98.0	99.7	94.7	82.7	86.6	95.6	89.9
1899....	101.7	102.9	99.2	101.3	95.7	98.9	105.7	100.1	100.1
1900....	106.6	108.1	104.3	106.3	106.6	129.1	136.1	108.1	120.0
1901....	112.5	113.8	109.7	112.0	106.6	113.0	124.2	108.1	113.0
1902....	112.5	113.8	109.7	112.0	111.3	118.4	128.5	108.1	116.6
1903....	115.4	111.4	107.4	111.4	115.3	127.8	130.7	108.1	120.5

Year.	House furnishing goods.										
	Glassware.				Table cutlery.			Wooden ware.			Average, house furnishing goods.
	Nap-pies, 4-inch.	Pitch-ers, ½-gallon, com-mon.	Tum-blers, ⅓-pint, com-mon.	Aver-age.	Carvers, stag handles.	Knives and forks, cocobolo handles.	Aver-age.	Pails, oak-grain-ed.	Tubs, oak-grain-ed.	Aver-age.	
1890....	107.1	106.4	101.4	105.0	100.0	127.9	114.0	122.6	122.5	122.6	111.1
1891....	107.1	106.4	112.7	108.7	100.0	127.9	114.0	111.6	116.3	114.0	110.2
1892....	107.1	106.4	107.0	106.8	100.0	113.0	106.5	103.9	103.9	103.9	106.5
1893....	107.1	106.4	107.0	106.8	118.8	90.8	104.8	101.1	97.1	99.1	104.9
1894....	107.1	106.4	107.0	106.8	100.0	90.8	95.4	96.9	95.6	96.3	100.1
1895....	107.1	106.4	104.2	105.9	100.0	90.8	95.4	86.3	92.8	89.6	96.5
1896....	89.3	106.4	101.4	99.0	100.0	90.8	95.4	97.2	92.8	95.0	94.0
1897....	89.3	85.1	95.8	90.1	93.8	82.5	88.2	95.6	92.8	94.2	89.8
1898....	89.3	85.1	90.1	88.2	93.8	90.8	92.3	87.3	92.8	90.1	92.0
1899....	89.3	85.1	73.2	82.5	93.8	94.9	94.4	97.5	93.4	95.5	95.1
1900....	89.3	85.1	101.4	91.9	93.8	94.9	94.4	114.9	107.0	111.0	106.1
1901....	125.0	110.6	101.4	112.3	93.8	107.3	100.6	119.3	107.6	113.5	110.9
1902....	125.0	110.6	104.2	113.3	93.8	107.3	100.6	119.3	107.6	113.5	112.2
1903....	125.0	110.6	99.5	111.7	93.8	107.3	100.6	122.2	107.6	114.9	113.0

Year.	Miscellaneous.							
	Cotton-seed meal.	Cotton-seed oil: sum-mer yel-low, prime.	Jute: raw.	Malt: Western made.	Paper.			Proof spirits.
					News.	Wrapping, manila.	Average.	
1890....	106.4	113.2	108.1	106.7	127.8	104.0	115.9	91.6
1891....	114.8	117.2	103.3	131.9	113.7	104.0	108.9	96.1
1892....	107.9	101.4	132.3	114.0	113.7	100.9	107.3	93.5
1893....	117.0	149.5	96.4	110.3	106.4	104.7	105.6	93.2
1894....	102.7	106.4	96.1	105.9	108.0	105.6	106.8	98.5
1895....	86.1	89.4	77.7	97.5	103.0	106.0	104.5	105.3
1896....	90.8	82.6	88.9	80.1	92.0	106.3	99.2	104.6
1897....	93.1	77.7	103.9	77.4	90.6	106.3	98.5	102.9
1898....	86.5	75.2	92.5	87.7	73.2	83.0	78.1	106.3
1899....	94.7	87.5	101.7	88.5	69.9	79.2	74.6	108.0
1900....	116.3	116.8	121.2	93.0	94.0	86.8	90.4	108.4
1901....	113.9	117.3	111.4	106.0	75.6	90.8	83.2	111.8
1902....	123.5	133.6	122.0	112.7	80.9	89.9	85.4	114.3
1903....	121.6	130.7	129.2	103.1	84.6	95.1	89.9	111.4

TABLE V.—RELATIVE PRICES OF COMMODITIES, 1890 TO 1903—Concluded.

[Average price for 1890-1899=100. For a more detailed description of the articles see Table I.]

Year.	Miscellaneous.							Average, miscellaneous.
	Rope: manila.	Rubber: Para Island.	Soap: castile, mottled, pure.	Starch: laundry.	Tobacco.			
					Plug, Horseshoe.	Smoking, granulated, Seal of N. C.	Average.	
1890....	160.0	104.6	104.4	106.6	102.2	98.2	100.2	110.3
1891....	111.1	98.8	109.1	122.4	101.2	98.2	99.7	109.4
1892....	122.9	84.5	109.7	107.2	94.0	98.2	96.1	106.2
1893....	98.4	89.5	108.1	105.2	100.1	98.2	99.2	105.9
1894....	82.4	84.2	103.3	105.2	101.0	98.2	99.6	99.8
1895....	78.7	92.7	89.1	104.3	101.0	98.2	99.6	94.5
1896....	71.1	99.9	88.2	89.1	96.1	98.2	97.2	91.4
1897....	67.6	105.6	93.3	86.2	94.9	98.2	96.6	92.1
1898....	90.1	115.8	96.7	86.2	104.3	104.1	104.2	92.4
1899....	117.1	124.3	98.1	86.2	105.4	110.0	107.7	97.7
1900....	141.3	122.6	107.7	97.7	111.9	110.0	111.0	109.8
1901....	116.9	106.1	115.1	104.3	117.6	110.0	113.8	107.4
1902....	144.3	90.8	116.5	130.5	114.6	109.9	112.3	114.1
1903....	122.7	113.1	115.6	123.9	113.6	112.0	112.8	113.6



## THE UNION MOVEMENT AMONG COAL-MINE WORKERS.<sup>(a)</sup>

By FRANK JULIAN WARNE, PH. D.

The first attempt to organize the coal-mine workers of the United States into a national union was made in 1861. It had its origin among a small group of miners who had emigrated from Great Britain to the Belleville district of Illinois. Prominent among these miners were Thomas Lloyd and Daniel Weaver, both Englishmen, who had been schooled in English labor unions and who had brought with them the ideas inculcated by that training. The object of the organization, as explained in an address to the miners of the United States issued by Weaver, was for "mutual protection, and improvement and education."

In response to this appeal, representatives of coal miners in Missouri and Illinois met in St. Louis in January, 1861, and organized the American Miners' Association, with Lloyd as president and Weaver as secretary. One of the principal objects of this association was to secure better mining laws in the different coal-producing States. The accomplishment of this object was materially aided by the "Avondale horror," which occurred in the anthracite fields of Pennsylvania in September of that year. The shocking death of 109 mine employees aroused widespread public sympathy with the miners' movement, of which the leaders in the organization took advantage. They succeeded in securing from the constitutional convention of Illinois, then in session, the insertion in the new constitution of a provision requiring the legislature to enact general mining laws for the safety of all persons working in the coal mines of the State. Such laws were later enacted by the legislature. The association also conducted a successful contest for mine inspection in Ohio. These successes brought to the organization a rapid growth in membership, and it spread within a short time over all the more important coal-producing States, becoming strongest in Missouri, Illinois, Ohio, and Maryland. It included among its members only bituminous coal-mine workers. The total annual output of soft coal in 1861 was

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<sup>a</sup>The principal sources of information employed in preparing this article were official documents, files of the United Mine Workers' Journal, in particular the writings of Andrew Roy, files of other newspapers, and interviews with officers of the United Mine Workers and with operators and miners in both anthracite and bituminous coal regions.



estimated at 6,500,000 tons, and the total number of coal-mine workers in the entire country did not much exceed 30,000.

It was natural for the movement to lapse during the civil war, when much more momentous events demanded attention, and not unnatural that it should be affected by the disintegrating forces then at work. Strikes in nearly all the coal fields accompanied the general fall in prices following that great struggle, and these added to the already growing hostility of the public against labor organizations of all kinds. The open air meetings of the striking miners, which were not always peaceable and orderly, were denounced as lawless mobs, and the leaders were bitterly persecuted. Popular indignation was easily aroused at this time, and there was evidence of internal dissensions among the miners. These conditions were employed to sweep the association out of existence, and to all outward appearances the American Miners' Association now became a thing of the past.

The movement, however, simply assumed another form in the Miners and Laborers' Benevolent Association, which by 1870 had become conspicuous in Pennsylvania, West Virginia, Ohio, Indiana, and Illinois. This association had spread from the anthracite region of Pennsylvania, where it was at first known as the Workingmen's Benevolent Association. Under the leadership of John Siney, the anthracite mine workers had been led successfully through several strikes and had succeeded in building up a strong union. They had maintained wages during falling markets, even against the organized opposition of the operators, and had established cooperative stores; they owned and managed several influential newspapers, and exerted a strong influence in politics, having been so successful as to secure from the Pennsylvania legislature the first mine-inspection law passed in this country, which, however, did not apply to the bituminous region of that State. Such success for the hard-coal miner, while the soft-coal mine employee was in a most unenviable condition, naturally drew attention to its cause, and in consequence the name and work of John Siney became of national importance, as it was mainly through his leadership that the anthracite mine worker enjoyed his high estate.

The extension of the Workingmen's Benevolent Association into the soft-coal producing States at first took the form of independent organizations among the men who had been identified with the American Miners' Association. In 1873 John Siney was led to attempt the union of all these branches under a national organization, and in response to his call, issued to the mine workers of the United States, a meeting was held at Youngstown, Ohio, in October of that year. Representatives were present from Pennsylvania, Ohio, Indiana, Illinois, West Virginia, and one or two other States. In his call Siney stated three objects of the meeting as being: (1) A consolidation of the entire body of miners of the United States for the purpose of self-protection;



(2) to afford pecuniary and moral support to such districts as may be forced to the alternative of a strike; and (3) for a thorough discussion of grievances and the passage of such laws in the several States as the safety and welfare of the mine workers demand.

The Youngstown meeting gave birth to the Miners' National Association, composed of soft-coal miners, with John Siney as its president, he having resigned his leadership of the anthracite mine workers to undertake the greater task. The constitution of the new organization provided for arbitration, conciliation, and cooperation, and for independent action in district affairs. No strike was to be begun until every other possible means of settlement had been exhausted, and before a strike should be entered upon a complete statement of the issues involved was to be made to the president of the organization and his consent to the proposed action secured. Provision was also made for an executive board, composed of one member from each State represented in the organization, to advise and assist the national officers. Headquarters of the association were established at Cleveland, Ohio.

Within two years the association had spread over all the central coal-producing States, and had an estimated membership of nearly 35,000. There is no question that it was powerful and influential. It contemplated, among other things, the undertaking of cooperative coal mining on an extensive scale, and for this purpose a large tract of coal land was purchased in Tennessee. Even while at the height of its power the causes that led to its downfall are easily discernible. The panic of 1873 had been followed by a period of industrial depression which became most acute in its effect upon the coal trade in 1875. Glutted coal markets forced many of the mines to work on half time. Prices were falling. With less work to do and less pay for that which they did, the miners engaged in strike after strike to prevent reductions in wages. Now came the first fair test of the arbitration principle enunciated by the organization. It proved a dismal failure. This was at the close of 1874. It followed a notification from the operators in the Tuscarawas Valley (Ohio) of a reduction in the price of mining from 90 to 70 cents a ton and corresponding reductions in wages for other mine labor. An arbitration board was organized, according to the provision in the constitution of the Miners' National Association, with three miners and three operators as members, one of the operators being the late Senator Marcus A. Hanna. Judge Andrews, of Cleveland, was umpire. The decision was against the miners, the price of mining being fixed at 71 cents a ton. At first the employees continued at work, but soon petitioned their executive board to be released from the award, which was done. They then made a demand for an advance of 9 cents a ton in the mining rate. This was granted by the operators after a short suspension. To add to the deplorable situation the miners lacked confidence in their leaders at a time when confidence was most



needed. In consequence the experience of the American Miners' Association under somewhat similar circumstances was repeated, the Miners' National Association declined, internal dissensions weakened it, and finally, at the close of 1875, it was lost sight of.

In the meantime there had come into existence an association which was destined to preserve the germ of organization among the coal miners until they were again ready and able to undertake the task of uniting in one national body. This was the Knights of Labor, which Uriah S. Stephens had launched in 1870. Christopher Evans, now statistician for the United Mine Workers of America, is given credit for being the first to introduce this organization among the coal miners, having organized the first miners' assembly at New Straitsville, Ohio. At the beginning the growth of the Knights of Labor among the coal-mine workers was slow, but following 1879, when the force of the 1873 panic had about spent itself, it was much more rapid. The miners' branch was known as Trades Assembly No. 135, Knights of Labor, and had a district master workman at its head. Soon the assemblies were in a prosperous condition, due to the improved industrial situation, not a few of them owning the halls in which their meetings were held. Many of these halls contained small libraries, and the meetings gave opportunities for debates and general discussions of labor problems. As such, they proved valuable training schools from which have come a number of present-day labor leaders.

This period of prosperity found the Ohio miners under a strong State organization, with John McBride at their head. The miners of the Pittsburg district of Pennsylvania were also well organized, under the leadership of David R. Jones, a graduate of Mount Union College (Ohio), who had left the mines when 18 years of age to take up the study of law. He was in absolute control, there being no other officers. His salary was made up of monthly dues of five cents from each member. The efforts of these leaders at this time were directed toward securing higher wages for the mine workers to accompany rising prices, the strikes of this period nearly all being for increased wages. But there were other troublesome questions which the mine employees of the several States desired settled. Finally an interstate convention was held at Pittsburg in March, 1880, and the mine employees demanded of the operators payment by weight for all merchantable coal, an eight-hour work day, and the abolishment of the "pluck-me" store system. If these concessions were not granted by August of that year there was to be a general strike of soft-coal miners. In the meantime the mine employees of the Tuscarawas Valley in Ohio, who had gone out on strike against the continuance of the screen system of payment for coal mined, offered resistance to the importation of Negro laborers to take their places, which resulted in the State militia being called into the field under arms and finally



in the decision of the mine employees to return to work under old conditions. This prevented the general strike as planned by the Pittsburgh convention.

The decade which followed was one of rapid railroad development throughout the coal-producing States. The result was the breaking down of the local or sectional markets for the commodity as a greater coal area became accessible and the establishing of what was practically a national market for the product of all the widely separated coal fields. It was still true that certain districts supplied certain markets. The eastern West Virginia and the Maryland fields, the central Pennsylvania field, and the anthracite region sent their product largely to the markets in the northern tier of seaboard States, principally to Portland, Boston, New York, Philadelphia, and Baltimore. Western Pennsylvania and West Virginia, Ohio, Indiana, and Illinois coal went to the Lake and Northwestern States. The coal-producing area accessible to the Monongahela, Kanawha, and Ohio rivers—western Pennsylvania, Ohio, and West Virginia—still found its market in the South at Cincinnati, Louisville, Mobile, New Orleans, and lower Mississippi points, to which was also sent coal not only from Kentucky, Tennessee, and Alabama, but also from States west of the Mississippi River. That these different markets drew their coal supply from these particular fields rather than from any of the others was due to the natural conditions of river outlets and mountain barriers. This explains briefly how it was that coal fields, lying next to each other, separated perhaps by only a mountain ridge, had their markets thousands of miles apart, and also why coal fields widely separated sent their product to a common market.

With the rapid railroad development particular coal fields were now no longer dependent entirely upon certain markets, and particular markets could be made independent, if necessary, of certain coal fields. From West Virginia and Pennsylvania, principally along the Youghiogheny River, between the fields supplying the eastern seaboard and those sending their product to the Lakes and Northwest, coal could be sent either to the seaboard or to the lake markets. Into the eastern seaboard market coal could be brought from the Kentucky, Tennessee, and Alabama fields to compete with the Ohio, Pennsylvania, and West Virginia product. Again, the coal from these widely separated fields met in competition in the southern Ohio and Mississippi River markets, into which also came coal from States beyond the Mississippi. Coal produced in the Pittsburgh district of Pennsylvania, if conditions warranted it, could be taken on board cars at Cincinnati and shipped into the western and northwestern markets, where it would sell alongside coal from Iowa; or southern Illinois could send its coal to St. Louis or Chicago or even to the far Northwest. Thus the hitherto widely separated coal markets were being bound so closely together that the



least rise or fall in the price of that commodity in any of the sectional markets had its effect, directly and indirectly, upon the price of coal in all the others. If this price for any cause rose much higher in one market than in the others the supply at once called forth would reduce it nearly to a level with the price in the other markets. A recognition of this interdependence of the coal-producing States was forced upon those engaged in the industry by the sudden increase in coal production following the opening of so many new fields. A period of business depression set in, overproduction of coal resulted in falling prices, and this was followed by reductions in wages and poor returns for the greater part of capital invested in the industry. Strike after strike in the coal fields indicated a deplorable state for both operators and miners.

“For the purpose of adjusting market and mining prices in such a way as to avoid strikes and lockouts, and give each party an increased profit from the sale of coal,” a movement was inaugurated in September, 1885, at Indianapolis, by the National Federation of Miners and Mine Laborers. This organization had come into existence in that year mainly through the efforts of those mine workers who were opposed to the secret methods of the Knights of Labor. Christopher Evans, of Ohio, was at its head. The movement contemplated a joint convention of operators and miners to provide a remedy for the wretched conditions. The credit for this idea is given to Daniel McLaughlin, of Illinois. In October, 1885, the first joint meeting was held in Chicago and was attended by operators and miners from Illinois, Indiana, Ohio, and Pennsylvania. With the hope of securing representation from a larger number of States and Territories a committee of three operators and three miners was appointed to issue a public address, which should set forth the object and purpose of the movement, and another meeting was called for December in Pittsburg. This latter meeting, although more largely attended than that held previously, adjourned, without definite action on the questions involved, to meet again in February.

On February 23, 1886, at Columbus, Ohio, the first joint national convention of coal operators and miners was organized with Christopher Evans, of Ohio, as chairman, and E. T. Bent, of Illinois, an operator, as secretary. Representatives of operators were present from Ohio, Indiana, Illinois, Pennsylvania, and West Virginia, and of miners from these States and Maryland. The basis of representation was fixed at 8 votes—4 to be cast by the miners and 4 by the operators—for each of the States of Illinois, Indiana, Ohio, Pennsylvania, and West Virginia. A scale of prices to be paid for mining in specified districts in Pennsylvania, Indiana, Illinois, Iowa, Ohio, and West Virginia, ranging from 56½ cents a ton, in the Staunton and Mount Olive districts, to as high as 95 cents a ton in the Wilmington (Illinois)



district, which had previously been prepared at the Pittsburg meeting, was adopted. The prices were to prevail from May, 1886, to May, 1887. A board of arbitration and conciliation, consisting of five miners and five operators at large and one miner and one operator from each of the States represented in the scale, was elected, to which all questions of an interstate or national character were to be submitted for adjustment. Oscar Townsend, of Ohio, was its president, and Christopher Evans, of the same State, secretary. This was probably the first movement of a national character in this country having for its object the establishing of methods of conciliation between capital and labor.

It was recognized at the very beginning that the problem before both operators and miners was a control of the competitive districts in those States having a common market. Such a control, to be effective, meant that the operators and miners in one district should not have any advantage over the operators and miners in another district. If by any chance the coal of one district came to market bearing a lower price than the product of the other districts, the cheaper commodity would necessarily undersell that bearing a higher price. The tendency under such conditions would be for the price of all the coal, from whatever district, to reach the level of the cheapest. Thus there could be no favored district, but all the factors entering into the price of coal—natural advantages, nearness to market, cost of transportation, the quality of the coal, the price of mine labor, and the numerous other elements entering into the cost of producing coal—must be so regulated that the product from all the districts should bear very nearly the same price when it reached the market. Moreover, the task undertaken, to be successful, meant a control not only over the competitive districts having a common market, but also over all the competitive fields having different markets. In brief, it was a problem of the national control of the law of competition as it operated in all the fields and markets where coal was produced and sold.

With a clear conception of the intention of the movement, it is not surprising that it did not succeed. In the first place, only in the central competitive territory—Ohio, Indiana, Illinois, and parts of West Virginia and Pennsylvania—which had a common market on the Lakes and in the Northwest, could the operators and miners be induced to take part in the movement, and the other fields were left practically unorganized. Even within this section it was not possible for all parties interested to agree at once upon any particular method of adjusting the widely varying conditions. Soon the operators of one district complained that the operators of another district possessed advantages which enabled them to put their coal on the market at a lower price and thus to undersell the former. Counter charges followed, and attempts were made by those believing themselves to be at



a disadvantage to remedy the particular conditions of which they complained. Much friction was the result, and failure after failure to keep the basis agreed upon was reported from the different districts. So many unforeseen factors continually entered in to disturb temporary adjustments that the agreement could not keep the competitive districts together. The Illinois operators were the first to withdraw. The Indiana operators followed in 1888.

The success of the federation itself was spasmodic, there being much internal dissension as well as strong opposition to the exercise of its power. This made itself openly evident in 1889 by the organization of the National Progressive Union, with John McBride, of Ohio, as president. Like the Knights of Labor branch of miners, it was a secret organization. The period that followed is conspicuous for the internal strife which broke out among the different organizations claiming jurisdiction over the coal-mine workers. The energies of their officers were now spent in fruitless warfare against one another, the conflict at times growing intensely bitter. Strikes begun by one or the other organization were lost through the antagonism and even the open hostility of the others, and by the close of the decade the coal miners' organizations were in a state very near exhaustion. Of the 221,000 mine workers in the country in 1890, not more than 45,000 were enrolled in the different organizations.

Seeing nothing but defeat to all the unions if such a course was continued, John Rea, president of the National Progressive Union, W. T. Lewis, master workman of the National Trades Assembly, No. 135, John McBride, and other leaders in these two factions started a movement for a consolidation. At separate conventions held at Columbus, Ohio, in January, 1890, the two organizations decided to affiliate, and in a joint convention they formed the United Mine Workers of America. John Rea, president of the Progressive Union, the stronger of the two affiliating organizations, was made the first president of the new organization. The Trades Assembly retained its secret methods and to some extent its individuality, in that the president of the United Mine Workers was also elected master workman of the assembly. The combined membership was about 20,000, being strongest in Pennsylvania, Ohio, Indiana, and Illinois. The total number of bituminous mine workers at this time was 192,000, and the total annual production of soft coal 111,302,000 tons.

The objects of the United Mine Workers of America, as stated in the preamble to the constitution, were to increase wages, to secure payment in lawful money, to establish weekly pay days and the right of the mine workers to spend their earnings wherever they choose; to protect the lives of mine employees through the introduction of safety appliances and through securing legislation toward the same ends; to establish an eight-hour work day; to prohibit the employment of chil-



dren under 14 years of age; to have laws enacted for weighing or measuring the coal they mined; to prevent the coal companies employing detectives or guards in times of strikes or lockouts, and to establish arbitration and conciliation for the settlement of disputes between the mine workers and their employers.

The early history of the United Mine Workers is that of an organization passing through an existence so precarious as to cause the reviewer of the present day to wonder that it ever succeeded in living to attain its present strength. It came into being at a time when the effect of the change in the nature of immigration—from Irish, German, English, and Welsh, to Polish, Hungarian, Austrian, and Italian—was felt most injuriously by labor employed in the coal-mining industry. The cheaper Slav labor poured into the mining States and thus put in operation among the mine laborers as never before the great law of competition, the result being demoralization of the standards of living that had prevailed among the other nationalities. To unite all these antagonizing elements in harmonious action for the common good of all mine workers was a task requiring the strength of a giant organization. The attempt of the new union to undertake it is curiously illustrated by the journal and constitution of the organization being printed in English and Slavonian, and its manuals in English, Lettish, Italian, Polish, and Slavonian. During the period preceding 1890 not only had the coal-mining industry been filled up with these different types of laborers, but there had been a rapid extension of old along with the construction of new railroad lines, the result being to extend greatly the coal-producing area. It is estimated that enough mines were opened in 1890 to have produced 40,000,000 tons more of bituminous coal than were mined in that year if the 192,000 mine employees had been given regular employment; or, in other words, the total of 111,302,000 tons produced that year could have been mined with 73,000 fewer miners than were then engaged in the coal industry. Despite this condition the coal area continued to be extended in 1891, 1892, and 1893, and the number of bituminous mine employees continued to increase, there being 52,000 more in 1894 than in 1890.

When it is remembered that the market price of coal is determined, to a large extent, by the price of mine labor—by the wages of the mine workers—it is not difficult to conceive the damaging effect such a condition of oversupply of labor had upon the joint-conference movement. In fact, this condition of the mine-labor market was one of the contributing causes of the failure of that plan. With a glutted labor market—with men bidding against one another for the sale of their labor—the price of mine labor generally tended toward the price set by those groups having the lowest cost of maintaining their labor, and these were now the pauper laborers from the central European coun-



tries. This cheaper labor poured into the unorganized fields and gave to the operators in those States, now competing in the same markets with those of the organized States, an advantage in the cost of production over the fields where the organized mine workers were striving to check such immigration.

Thus the United Mine Workers, at the very outset, was face to face with conditions that foretold falling prices and reductions in wages, the baneful effects of which were to be felt by the mine employees for many years. With an overproduction of coal and an oversupply of labor when the period of depression set in in 1893, many of the mines had to be closed, and so many thousands of mine workers were thrown out of employment that the governors of the States issued public appeals for aid. That the new organization found itself involved in numerous strikes is not surprising. With less than one-sixth of the miners of the country organized, it undertook to conduct strikes in Iowa, in the coke fields of Pennsylvania, in the Pittsburg district, and in Indiana. All proved disastrous to the miners and to their organization. Not only did the miners fail to secure their demands, the principal one of which was for an eight-hour workday, but the union had lost 12,000 members at the end of the year. The defense fund provided for by the first convention brought in only \$70,000. The only success of the year was the securing of favorable screen legislation in Illinois, Indiana, and West Virginia. By this time only the Pittsburg and Ohio operators and miners were in the joint-conference movement, and even these withdrew in 1891 from the agreement through a failure to settle the miners' demand for an eight-hour workday. The years following proved even more discouraging.

The fifth annual convention of the United Mine Workers at Columbus, in April, 1894, not only looked back on general failure, as far as definite accomplishment was considered, but looked forward to prospects that seemed even worse. The movement for higher wages in the Pittsburg district and in West Virginia not only was a complete failure, but was followed by a period of reduction in wages with the beginning of the industrial depression in 1893. At first this had the effect of forcing the mine workers into the union, the membership soon reaching 70,000, with 161 new locals and assemblies in Pennsylvania, Kansas, Missouri, Illinois, Tennessee, Kentucky, Ohio, and Indiana; but the members were in such financial straits that the organization released them from the payment of dues.

Mining rates had been steadily reduced in the Pittsburg district, wages had decreased in the central Pennsylvania, West Virginia, and Ohio fields, and reductions were threatened in the western and southwestern coal-producing States. To prevent this, and in the hope of restoring the scale of prices for mining and the conditions of employment which prevailed at the beginning of May, 1893, the fifth annual



convention ordered a suspension of mining operations to take effect April 21, 1894. At this time the organization had only 13,000 paid-up members and barely \$2,600 in the treasury. Notwithstanding this, nearly 125,000 mine workers quit work on that day, and the number was increased to 180,000 at the end of eight weeks. It was not the intention of the leaders to suspend coal mining entirely, but only during every alternate two weeks until the glutted markets were depleted, in the hope that increased prices would bring increased wages. But after the men had come out they refused to go back and the suspension developed into a widespread strike, which affected the eight principal soft-coal producing States of Ohio, Indiana, Illinois, Pennsylvania, Kansas, Missouri, Kentucky, and Tennessee. Its object was defeated by the operators and miners of the two Virginias, Maryland, and the anthracite region of Pennsylvania increasing their output and supplying the Lake markets while the strike was on. Work was resumed on June 12 by action of the Cleveland convention of mine workers, which left a settlement to the national executive board and the district presidents. This settlement was at the time regarded as a compromise in that a slight increase in wages was secured for the mine workers in Ohio, Indiana, and western Pennsylvania, while a reduction in wages was accepted in central Pennsylvania, in Illinois, and in some of the Southern States. John McBride, who had been elected president in 1892, was at this time at the head of the organization.

The strike was far from being a success except perhaps in a negative sense in that it temporarily checked further reductions in wages. The United Mine Workers was almost destroyed. The compromise which brought the strike to a close saw the end, for the time being, of the interstate agreement between the operators and miners of the central competitive territory. Repeated attempts had been made in 1892 and 1893 to restore the joint conference in the central competitive districts, but none of them succeeded. In some of the States independent agreements between the operators and miners took its place. Through these the mine workers in the different fields were now forced to accept reduction after reduction in wages, as the operators having a greater cost of production were compelled to meet the competition of those having a lower cost of production. The great law of competition was absolutely beyond the control of both operators and miners, and demoralization of all interests concerned in the industry followed. The United Mine Workers emerged from the strike with barely 8,000 members, and was too poor to defray the expenses of national executive board meetings, the business having to be carried on by correspondence. Nor was the association able to meet the expenses of railroad fare for delegates to the seventh annual convention, as provided for in its constitution. The National Trades Assembly, which had at first maintained its independent form and which had later become entirely



independent of the Knights of Labor, was now dissolved. A period of low wages, adverse conditions of employment (conditions determined almost wholly by the operators), frequent unsuccessful strikes, comparative idleness during part of the year for many of the mine employees, desertions by the hundreds until over 90 per cent of the coal-mine workers of the country were outside the organization, and a bankrupt treasury, seemed to indicate the early dissolution of the United Mine Workers, and the most stout hearted of the leaders lost hope.

In 1896, however, the industrial situation began to improve. Rising prices, following the partial depletion of the markets and a generally increased demand for fuel from the industries, had their effect on the coal industry. M. D. Ratchford, who had been at the head of the Ohio miners, was now president of the United Mine Workers. McBride had resigned in the fall of 1894 to become president of the American Federation of Labor, and was succeeded by Philip Penna, of Indiana, who served until Ratchford's election in 1897. A convention of the organization was held at the beginning of that year, and it resolved upon a demand for a general increase in wages of 15 per cent, leaving the question of a strike to enforce the demand to the executive board and the district presidents. During the period of depression the price for mining had fallen from 60 cents a ton to 54 cents in the Pittsburg district and to an average of 47 cents in other fields. With only 10,000 members, of whom 7,000 were in Ohio, and despite the fact that there was an empty treasury and that many miners were already idle, the officers of the union decided upon a strike, which was ordered for July 4, 1897. The order was obeyed by over 100,000 men in eleven States, including a part of the anthracite region of Pennsylvania, and there was a general suspension of operations in Pennsylvania, West Virginia, Ohio, Indiana, and Illinois. A compromise was effected at a conference of operators and miners at Pittsburg on September 3. There was to be an average advance of about 20 per cent in wages, with the understanding that the operators and miners of the central competitive coal fields would meet in Chicago on January 17 "for the purpose of formulating a wage scale and of making an annual contract by mutual joint agreement." In order to give the operators and miners in all the fields time to settle upon the basis agreed to, there was to be no resumption of mining for ten days, but in this case, as in many previous ones, each district and field seemed to care only for its own particular interests, with the result that the settlement succeeded only in Ohio, western Pennsylvania, Indiana, and a portion of Illinois.

This strike proved to be the most successful movement of its kind ever undertaken in America up to that time. A period of renewed



industrial prosperity now set in over the entire country, which marked a turning point in the history of the United Mine Workers. From one of the poorest of labor organizations it became within five years the strongest single labor organization in the world. The reestablishment of the interstate agreement in the central territory brought an advance in the wage rate, the adoption of a uniform screen, and a uniform day wage scale, along with an eight-hour workday. The most conspicuous result was that a means was established for doing away to a great extent with the necessity for strikes in the central coal-producing States.

The principles underlying this joint movement, with its objects and purposes, are as follows:<sup>(a)</sup>

First. That this joint movement is founded, and that it is to rest, upon correct business ideas, competitive equality, and upon well-recognized principles of justice.

Second. That, recognizing the contract relations existing between employer and employee, we believe strikes and lockouts, disputes and friction, can be generally avoided by meeting in joint convention and by entering into trade agreements for specified periods of time.

Third. That we recognize the sacredness and binding nature of contracts and agreements thus entered into, and are pledged in honor to keep inviolate such contracts and agreements made by and between a voluntary organization, having no standing in court, on the one hand, and a merely collective body of business men doing business individually or in corporate capacity on the other, each of the latter class having visible and tangible assets subject to execution.

Fourth. That we deprecate, discourage, and condemn any departure whatever from the letter or spirit of such trade agreements or contracts, unless such departure be deemed by all parties in interest for the welfare of the coal-mining industry and for the public good as well, and that such departure is first definitely, specifically and mutually agreed upon by all parties in interest.

Fifth. Such contracts or agreements having been entered into, we consider ourselves severally and collectively bound in honor to carry them out in good faith in letter and spirit, and are so pledged to use our influence and authority to enforce these contracts and agreements, the more so since they rest in the main upon mutual confidence as their basis.

The first of the interstate joint conferences following the strike of 1897 was entered into "by and between the operators and miners of Illinois, Indiana, Ohio, and western Pennsylvania," at Chicago, in January, 1898. It provided as follows:

First. That an equal price for mining screened lump coal shall hereafter form a base scale in all the districts above named, excepting the State of Illinois, the block-coal district of Indiana to pay 10 cents per ton over that of Hocking Valley, western Pennsylvania and Indiana bituminous district; and that the price of pick run-of-mine coal in Hocking Valley and western Pennsylvania shall be determined by the

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<sup>a</sup>Resolution adopted by the fifth annual joint convention at Indianapolis, 1902.



actual percentage of screenings passing through such screens as is hereinafter provided, it being understood and agreed that screened or run-of-mine coal may be mined and paid for on the above basis at the option of the operators, according to market requirements, and the operators of Indiana bituminous shall also have like option of mining and paying for run-of-mine or screen coal.

Second. That the screen hereby adopted for the State of Ohio, western Pennsylvania and the bituminous district of Indiana shall be uniform in size, six feet wide by twelve feet long, built of flat or Akron-shaped bar of not less than five-eighths of an inch surface, with one and one-fourth inches between bars, free from obstructions, and that such screen shall rest upon a sufficient number of bearings to hold the bars in proper position.

Third. That the block-coal district of Indiana may continue the use of the diamond screen of present size and pattern with the privilege of run-of-mine coal, the mining price of which shall be determined by the actual screenings; and that the State of Illinois shall be absolutely upon a run-of-mine system, and shall be paid for on that basis.

Fourth. That an advance of 10 cents per ton of 2,000 pounds for pick-mined screened coal shall take effect in western Pennsylvania, Hocking Valley and Indiana bituminous districts on April 1, 1898, and that Grape Creek, Ill., and the bituminous district of Indiana shall pay 40 cents per ton run-of-mine coal from and after same date, based upon 66 cents per ton screened coal in Ohio, western Pennsylvania and the Indiana bituminous district, same to continue in force until the expiration of this contract.

Fifth. That on and after April 1, 1898, the eight-hour workday with eight hours' pay, consisting of six days per week, shall be in effect in all of the districts represented, and that uniform wages for day labor shall be paid the different classes of labor in the fields named, and that internal differences in any of the States or districts, both as to prices or conditions, shall be referred to the States or districts affected for adjustment.

Sixth. That the same relative prices and conditions between machine and pick mining that have existed in the different States shall be continued during the life of this contract.

Seventh. That present prices for pick and machine mining and all classes of day labor shall be maintained in the competitive States and districts until April 1, 1898.

Eighth. That the United Mine Workers' organization, a party to this contract, do hereby further agree to afford all possible protection to the trade and to the other parties hereto against any unfair competition resulting from a failure to maintain scale rates.

This contract was to remain in force for one year from April 1, 1898, and another interstate convention was to be held at Pittsburg in January, 1899.

This agreement was signed by the operators and miners of the States represented (<sup>a</sup>) and by a representative of the West Virginia miners, (<sup>b</sup>)

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<sup>a</sup> Excepting the Ohio operators.

<sup>b</sup> Later the United Mine Workers attempted to enforce a boycott against the West Virginia product because the operators of that State refused to become a party to the agreement or to abide by its provisions.



as well as by members of the national executive board of the United Mine Workers of America. They did not agree to all its provisions in a day, or without heated controversies, which more than once threatened to end the movement. In fact, the Ohio operators, who had insisted upon a 5-cent differential against the Pittsburg thin-vein district, refused to sign the agreement, claiming that the prices arrived at placed them at a disadvantage with competing districts, but they finally consented to its provisions. The variations in the natural conditions in the different districts, the inequality in wages, the differences in the hours of labor each day, and the widely varying terms of employment, such, for instance, as the purchase of powder from the operator, dealing at the company store, etc., were so great in the several States and in the different districts within a State as to present what seemed at times almost insolvable problems. To allay as much as possible the antagonism to which these widely varying conditions gave rise the Chicago convention provided for a joint committee of two operators and two miners, to be chosen by each State, to formulate a uniform day work scale, based upon the districts upon which the mining prices were based, which was to become a part of the interstate agreement. This committee met at Columbus in March. The scale it adopted for all inside day labor fixed the wages of track layers and timbermen at \$1.90, pipemen at \$1.85, trappers at \$0.75, and track layers' helpers, bottom cagers, drivers, trip riders, water haulers, company men in long-wall mines of third-vein district, northern Illinois, and other inside day labor at \$1.75. This scale was arrived at by taking the average of the wages paid in all of the competitive districts and reducing this average to an eight-hour day, then adding the advance to correspond to the advance in price of mining to be paid in April. "Owing to the variations of conditions over which we have no control" the committee failed to agree upon a uniform rate of wages for the different classes of outside labor for the entire competitive field, but left the employment of these men and the wages to be paid them entirely to the employers and to such employees until the next interstate joint conference. It was agreed, however, that where any of the laborers then engaged in outside day labor in the competitive field preferred to work in the mine rather than to accept the wages paid to members of their class they were to be employed to mine coal. An eight-hour day was defined as "eight hours in the mine at usual working places for all classes of inside day labor," exclusive of the time required in going to such places in the morning and returning from them at night. Drivers were to take their mules to and from the stables, "their work beginning when they reach the change at which they receive empty cars, but in no case shall the driver's time be docked while he is waiting for such cars at the point named." "When men go into the mine in the morning they shall be



entitled to two hours' pay whether or not the mine works the full two hours. But after the first two hours, the men shall be paid for every hour thereafter by the hour, for each hour's work or fractional part thereof. If for any reason the regular routine work can not be furnished the inside labor for a portion of the first two hours, the operators may furnish other than regular labor for the unexpired time."

The first agreement thus formulated a means of settling many vexed questions. It declared for an equal price for mining screened lump coal as a base scale for all districts but Illinois; decided that the Indiana block-coal district should pay 10 cents more a ton than certain bituminous districts, and settled upon a plan for determining the price of pick run-of-mine coal in the Hocking Valley (Ohio) and western Pennsylvania districts. Rates in the different districts were established and advances determined upon, uniform wages for inside day labor agreed to, eight hours recognized as a day's work, and an understanding reached by which all disagreements over prices and conditions in any district were to be adjusted in that district. With the adoption of a uniform screen for Ohio, the Indiana bituminous, and the western Pennsylvania fields not only was the size of the screen reduced to the smallest prevailing standard, but to a large extent the screen was abolished entirely.<sup>(a)</sup> The general effect of this agreement was to advance wages about 18 per cent and to reduce the hours of labor in about the same proportion. More friendly relations between employers and employees were established, and, more important even than this, the miners' union was recognized.

The Pittsburg convention of January, 1899, readopted the Chicago agreement for the scale year ending March 31, 1900. It was also agreed that the machine question of Illinois (outside of the Danville district, the basing point, where prevailing prices were to continue) should be taken up during the coming year by the Illinois State convention for adjustment by conciliation or arbitration; and that if it could not be settled by the Illinois State convention, it was to be referred to a board of arbitration to be composed of seven members. The question in dispute was whether the various districts of Illinois were entitled to any reduction in the Springfield scale differentials, as against Danville, the basing point; and if so, how much. The Columbus inside day wage scale was to continue.

In February, 1900, at Indianapolis, the joint convention entered into a new agreement, as follows:

It is hereby agreed—

SECTION 1. (a) That an advance of fourteen (14) cents per ton of two thousand (2,000) pounds for pick mined, screened coal, shall take effect in western Pennsylvania thin vein, the Hocking, the basing district of

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<sup>a</sup> President Ratchford's report to the tenth annual convention of the United Mine Workers.



Ohio, and the block-coal district of Indiana. (b) That the Danville district, the basing point of Illinois, shall be continued on an absolute run-of-mine basis, and that an advance of nine cents (9 cents) per ton over present prices be paid in the district named. (c) That the bituminous coal district of Indiana shall pay forty-nine cents (49 cts.) per ton for all mine-run coal loaded and shipped as such. All other coal mined in that district shall be passed over a regulation screen, and be paid for at the rate of eighty cents (80 cts.) per ton of two thousand (2,000) pounds for screened lump.

SEC. 2. That the screen hereby adopted for the State of Ohio, western Pennsylvania, and the bituminous district of Indiana, shall be uniform in size, six (6) feet wide by twelve (12) feet long, built of flat or Akron-shaped bar, of not less than five-eighths ( $\frac{5}{8}$ ) of an inch surface, with one and one-fourth ( $1\frac{1}{4}$ ) inches between bars, free from obstructions, and that such screen shall rest upon a sufficient number of bearings to hold the bars in proper position.

SEC. 3. That the block-coal district of Indiana may continue the use of the diamond-bar screen, the screen to be seventy-two (72) feet superficial area, of uniform size, one and one-quarter inches between the bars, free from obstruction, and that such screens shall rest upon a sufficient number of bearings to hold the bars in proper position.

SEC. 4. That the differential between the thick and thin vein pick mines of the Pittsburg district be referred to that district for settlement.

SEC. 5. (a) That the price of machine mining in the bituminous district of Indiana shall be eighteen (18) cents per ton less than the pick-mining rate for screened lump coal, when punching machines are used; and twenty-one and one-half ( $21\frac{1}{2}$ ) cents per ton less than pick-mining rate when chain machines are used. When coal is paid for on run-of-mine basis, the price shall be ten (10) cents per ton less than the pick-mining rate when punching machines are used, and twelve and one-half ( $12\frac{1}{2}$ ) cents per ton less than pick-mining rates when chain machines are used. (b) That the machine-mining rate in the Danville district, the basing point of Illinois, on both punching and chain machines, be thirty-nine (39) cents per ton.

SEC. 6. That the machine-mining rate in the thin vein of the Pittsburg district, and the Hocking, the basing district of Ohio, for shooting, cutting and loading, shall be advanced nine (9) cents per ton. And that the block-coal district of Indiana shall be advanced eleven and one-half ( $11\frac{1}{2}$ ) cents per ton.

SEC. 7. That the mining rates in the central district of Pennsylvania be referred to that district for adjustment.

SEC. 8. That the advance on inside day labor be twenty (20) per cent, based on the present Hocking Valley scale; with the exception of trappers, whose compensation shall be one dollar (\$1) per day.

SEC. 9. That all narrow, dead work and room turning shall be paid a proportionate advance with the pick-mining rate.

SEC. 10. That internal differences in any of the States or districts, both as to prices or [and] conditions, shall be referred to the States or districts affected, for adjustment.

SEC. 11. The above scale is based upon an eight (8) hour workday.

This Indianapolis agreement was renewed in 1901 and 1902. In February, 1903, the interstate convention decided to continue the



Indianapolis agreement for the year ending March 31, 1904, with increases in mining prices and inside day wages. On pick mining in western Pennsylvania thin vein, the Hocking (the basing district of Ohio), and the Indiana block and bituminous districts the increase was 10 cents per ton on inch and a quarter screened lump coal, and in the bituminous district of Indiana and at Danville (the basing point for Illinois) 6 cents per ton on mine-run coal. On machine mining in western Pennsylvania thin vein and the Hocking (the basing district of Ohio) the increase was 8 cents per ton, and in the block and bituminous districts of Indiana, 10 cents per ton, on screened lump coal; and in the bituminous field of Indiana and at Danville, 6 cents per ton on mine-run coal. With the same conditions as those of the Columbus day-wage-scale agreement, inside day wages were fixed at \$2.56 for track layers, bottom cagers, drivers, trip riders, water and machine haulers, and timbermen; \$1.13 for trappers, \$2.50 for pipemen, and \$2.36 for track-layers' helpers and other inside day laborers (including company men in long wall mines of third vein district, northern Illinois). Yardage and dead work were advanced  $12\frac{1}{2}$  per cent.

The definite results of the working of the interstate joint conference movement for the past six years have been shown. An inquiry into the operation of the machinery by which they are brought about is not without interest.

The convention meets usually about the last week in January, in a city determined upon by the preceding convention, to agree upon wages and conditions of employment for the scale year, from April 1 to March 31. The miners are represented by the district (State) and national officers of the United Mine Workers of America. The operators of each State, in some of which they have a distinct organization, have four representatives and the miners from each State four representatives. Usually the conference is called to order by the president of the United Mine Workers, who is made temporary chairman. An operator is generally selected as permanent chairman, and a representative of the miners' union as secretary, with an operator as assistant secretary. Two members from each side from each State make up the different committees, such as credentials, rules, and order of business, etc., excepting the scale committee. This gives each side equal representation upon all committees.

Two sessions of the convention, usually open to the public, are provided for each week day, with occasional evening sessions. The miners' representatives have seats on one side of the hall and the representatives of the operators upon the other side. In deciding questions on the floor of the convention each side has four votes for each State, a total of 16 votes each. To reach a decision upon any question there must be a unanimous vote of the miners and operators of each State, and in no event is this rule suspended in its application to all



questions affecting the proposed scale and agreement. The order of business consists of the report of the credentials committee, appointment of the scale committee, report of this committee, discussion of this report, and adjournment. This order of business appears simple, and yet it sometimes takes two or three weeks, or even longer, to dispose of it; and in doing so some of the most complex business questions with which it is the lot of any group of men to deal are discussed if not settled.

Before the convention assembles the representatives of the miners attend the annual convention of the United Mine Workers and learn from the rank and file of that organization what particular or general questions are uppermost in the different fields and what the workers expect of the operators in the way of improved conditions of employment and the remedying of particular grievances. In a meeting prior to the joint conference the miners' representatives decide upon the line of policy they will pursue in presenting their claims to the operators. These claims come before the joint conference in the form of a resolution stating the prices that are to be paid for mining and the conditions of employment that are to prevail in the central competitive field and in the particular States composing it represented in the meeting. The claims most frequently embraced in the resolutions are for a general increase in wages, a uniform mining system, and a uniform wage scale for all outside day labor, an eight-hour workday, a differential per ton between pick and machine mining, a minimum day wage for specified occupations, freedom in purchasing powder and other supplies, and the adoption of a check-off system in all the competitive districts by which the companies collect for and pay over to the United Mine Workers the dues and assessments of its members. A general discussion of the resolution follows, during which the representatives of the miners give the reasons as they see them why the claims asked should be granted. These are replied to by the operators with just as plausible reasons from their standpoint why the changes requested should be refused. After a full and free discussion the resolution is put to a vote and is usually lost by the miners voting unanimously for its adoption and the operators voting unanimously that it be not adopted. Under the rules requiring a unanimous vote of both sides the motion to adopt the resolution is declared lost and then the whole question on motion goes to the scale committee.

Early in the convention each State selects four representatives from each side to make up the membership of the scale committee, each side choosing its own representatives. This makes four miners and four operators from each State, a total of thirty-two members. In addition to these, for each representative on the committee each State may have an alternate, who enjoys all the privileges of the others except that of voting, unless his principal is absent. Sometimes com-



missioners who represent various fields and interests, States, and districts are admitted to the joint scale committee, but they have no vote in its deliberations. It is in this scale committee that the real work of the convention is usually transacted. It meets and organizes, adopts the rules governing the joint convention as its rules, and at once takes up its order of business. This is ordinarily a motion to adopt the scale as presented by the miners. A vote similar to that recorded in the joint convention generally results; the operators vote unanimously against its adoption and the miners unanimously for the motion. Then the scale is taken up and discussed clause by clause. This brings out facts and figures from both sides, and many of the intricate and difficult questions involved in the conduct of this great business are presented in all their details. If any person doubts that there are two sides to all questions involved in the mining of coal he should attend one of the sessions of this scale committee. This is the great value of the whole movement—it enables the operator and the miner to see both sides of the questions that daily come up to perplex them, and each is convinced as he had not been before, probably, that all the truth is not on his side. One thing is true—these intricate questions are not discussed in the scale committee with that bias and fanaticism so often displayed in labor controversies where the questions are brought to the arbitrament of a strike, but logic and reason and good common sense are brought to bear upon them. The miners have demonstrated that they are possessed of these latter qualities just as much as have the operators. It is true that when it comes to determine finally the question at issue each side commonly votes unanimously against the other, but they have had the advantage of a free, honest, and friendly intercourse which tends to remove many of the obstacles that conspire to prevent a prompt settlement of the perplexing questions involved. Usually no decision is arrived at on any of the miners' demands, and then the scale committee reports to the joint convention after three, four, or even more days' sitting, including, sometimes, night sessions.

This report of the scale committee is received by the joint convention and then a motion is made that the scale be adopted. Here again the scale is taken up clause by clause and discussed, and the votes are usually the same—all the operators vote one way and all the miners the opposite. The scale is again referred to the joint scale committee, and immediately upon its meeting the second time a subscale committee of two operators and two miners from each State is selected, each State naming its members upon call of the roll. Then the scale committee adjourns to meet at the call of the subscale committee.

The meetings of the subscale committee are absolutely secret. No notes of what is said or done are taken by a stenographer or by any



of the members, and no records of any kind are kept of its proceedings. At these meetings both sides are as open and frank toward each other as it is perhaps possible to be. No attempt is made to hide any of the secrets of the trade, and the whole intricate problem is laid bare to both sides. Correct figures are given, and statements are made as to the existence of certain conditions which may throw new light on the subjects under discussion and present the actual state of affairs. As a result the subcommittee has not failed once in six years to reach an agreement.

Inasmuch as the claims of the miners have been opposed in all the meetings of the convention and of the scale committee so far held, it is the custom for the operators to present to the subscale committee their propositions as to the prices to be paid mine labor and the conditions of employment they think should prevail for the ensuing year. These propositions the miners oppose. The operators' claims are then referred to the joint scale committee, in which the miners again reject them. Back goes the question of the adoption of a scale to the subscale committee. It may remain in session two days or two weeks. The result is an agreement. The subscale committee then reports its findings to the joint scale committee, which unanimously adopts it; the joint scale committee then reports its action to the joint convention, which in turn unanimously adopts the report. The scale as then agreed to is signed by two men from each side from each State. Usually the miners signing the agreement are the president and secretary of the district and the national officers of the United Mine Workers. Little other business then remains to be transacted and soon after the signing of the scale the convention adjourns to meet the following year at a place determined upon.

This interstate agreement, it is seen, settles several important questions. It sets the basing point in each State for determining prices to be paid for work about the mines, fixes upon 2,000 pounds as a ton for the entire central competitive field included in the agreement, recognizes the two general methods of fixing rates upon a screened-coal or mine-run basis, agrees upon regulation screens where the screen method is in use, establishes a differential between machine and pick mining under whichever method employed, between punching and chain machine mining, between thick and thin vein pick mines, and makes eight hours a day's work for all classes of mine employees. With these questions agreed upon, the mine employees and the operators in the different State and subdistrict conventions are not troubled with those particular problems, but are left free to devote all their attention to other vexing questions which may concern a smaller number of mine workers in a smaller area, but the settlement of which is none the less of vital importance in reaching some kind of an agreement.

Following the interstate joint conference the operators and miners of



each State (district) represented in it meet in joint convention in their respective States or districts, before April 1, and with the interstate agreement or contract as a basis adopt prices and determine upon the conditions of employment which are to prevail for the scale year. Each district convention takes the prices at the basing point in that State as fixed by the interstate conference, and regulates the prices in the different fields in that State according to the basis, prices for the different kinds of work varying as local conditions are found to require. On questions where an agreement can not be reached, a joint commission of operators and miners is appointed to investigate and settle them. Questions which it is agreed concern only certain sections are referred to the subdistricts in their conventions. After the State convention adjourns the operators and miners of the subdistricts, usually covering smaller areas within a State where sectional questions are matters of chief importance, hold a meeting, indorse the interstate and State agreements, and then contract for their own local area covering the requirements of its particular needs.

As has been intimated, the permanency of this joint conference movement was seen from its very inception to be dependent upon the existence of a strong national organization of mine workers with jurisdiction over each and all of the States included in the coal area of the country, and not alone over those within the central competitive territory. This the leaders of the miners thoroughly recognized, and in 1898 they began to direct their energies to accomplish that end. Under the leadership of John Mitchell, who succeeded to the presidency upon the retirement of Mr. Ratchford to become a member of the Industrial Commission, an era of remarkable growth was entered upon. During 1899, the United Mine Workers was extended into the coal-producing States west of the Mississippi River. Upon the refusal of the operators of that section to meet with the miners in a joint conference to regulate wages and conditions of employment, the union inaugurated a strike in Kansas, Arkansas, Indian Territory, and Missouri, which began on March 1, 1899, and continued for nearly a year in some districts in Arkansas and Indian Territory. In Kansas and Missouri the mining rate was advanced, hours of labor reduced, and the check-weighman system established. In the same year the union was extended into the southern coal fields of Kentucky, Tennessee, and Alabama, after strikes in those States. Such was the phenomenal growth of the organization that more than 475 new locals were established in 1899 and 608 in 1900, increasing the total enrollment in the latter year to 189,329 as compared with 54,700 in 1898. Instead of only 5 States being represented in the annual meetings of the United Mine Workers there were present at the tenth convention in Pittsburg, January, 1899, representatives from 13 coal-producing States and Territories. Separate agreements between operators and members of the United Mine



Workers were soon established in parts of Kentucky, Tennessee, Alabama, Iowa, Kansas, Missouri, central Pennsylvania, Michigan, and West Virginia. They follow the general lines laid down by the joint interstate agreement of the central competitive territory. The Iowa and Michigan operators and mine workers have endeavored time and again to secure admittance to the interstate conference, but their efforts have been opposed by the operators of Ohio, Indiana, and western Pennsylvania, while the operators of Illinois and the mine workers of all four States in the joint movement have favored admitting the representatives from these two States. For years the United Mine Workers have put forth efforts to bring the operators of West Virginia into the joint conference, the work of the organization in this direction being encouraged by the operators of all four States in the joint movement, but the union has so far failed in this seemingly Herculean task. As long as the West Virginia operators and miners are outside the joint conference agreement the very foundation of the movement is threatened. This is the more evident when it is remembered that West Virginia coal competes in the Lake markets with the coal from Ohio, Indiana, Illinois, and western Pennsylvania. Under the joint agreement as to wages and conditions of employment with the United Mine Workers, the operators of these four States have to meet a greater cost of production than the operators of West Virginia, the latter having advantages in cheaper labor, a larger number of hours of work per day by the miners, larger mining cars, more pounds to the ton, and in the general conditions of mining, such as weighing, dead-work, dockage, etc. These and other advantages enable the West Virginia operators to send their coal a greater distance to the same market and sell it for a less price per ton than the Ohio, Indiana, Illinois, and western Pennsylvania operators can afford to sell. The operators of West Virginia have persistently refused to enter the interstate movement for various reasons, prominent among which is their ability, under present conditions, to secure larger returns upon their investments. Not a few of the West Virginia operators have gone to that State from the anthracite fields of Pennsylvania and from the States in the central competitive territory which are governed by the joint agreement.

Because the operators and mine workers in the States included in the joint conference enter into agreements, it should not be inferred that both sides are perfectly satisfied on all the questions agreed to. This would be expecting the millenium in the industrial world. Ever since the joint movement was inaugurated, as far back as 1886, there have been differences of opinion between the operators and miners upon questions of common interest. On many of these they are still at opposite points of view. As to the advisability of uniform scale provisions for all four States, the miners favor and the operators



oppose such propositions; there is friction over questions growing out of machine and pick mining, the mine workers claiming that nearly all the benefits of machine mining go to the operator; there is always a controversy in the conference over the run-of-mine and screen methods of weighing and paying for the product of the miners' labor, the union insisting that the miner is the sufferer where the coal is screened before payment; even at the present time there is contention between the two parties as to the extent of the union's control over "outside" employees, the operators persisting in their claim that such employees are "company" men. The establishing and increasing of the differential between machine and pick mining has also more than once threatened the peace of the joint conference.

These and other disputed questions aside, however, certain fundamental principles have been established by the joint movement. The "right" of the mine workers to organize for their own protection and for the improvement of their condition of employment is recognized by the operators; the "right" of these men to be represented in settling disputes and agreeing upon the prices for which their labor is to be sold is conceded by the operators treating directly with the officers of the United Mine Workers of America. These two principles are now firmly established in the central competitive coal fields. Not only do the operators of those States depend largely upon the United Mine Workers to enforce the agreements entered into on behalf of the mine employees, upon nonunion employees as well as upon its own members, but they look to the union rather than to themselves to see that any operator who might attempt to violate the contract is forced to live up to its terms. In many cases the operators have gone so far as to recognize all their employees, with but few exceptions, as members of the United Mine Workers. The joint movement, in brief, has established well-defined "rights" on both sides. These are specified in the agreements, and accompanying them are certain duties which each side recognizes it owes to the other party to the contract.

Since the joint movement was resumed in the central competitive territory in 1898 no strike or lockout of any serious proportions has occurred in any of the States which are parties to the joint agreement. In the four years preceding, during which the agreement had lapsed for various causes, strikes and lockouts and general industrial unrest were the rule rather than the exception. It does not follow, however, that the joint agreement prevents absolutely all possibility of industrial disturbances—this power is not claimed for the movement by even its most ardent advocates. It does tend, however, to establish and preserve industrial harmony between the two conflicting interests and to secure more stable market conditions. The value of the joint movement is also reflected in the imitation of its principles by other branches of industry.



For the first time in the history of the trade-union movement among the coal miners of the United States the United Mine Workers, after the strike of 1897, made a serious attempt to include the anthracite mine employees in its organization. While it had established a few locals in the hard coal region as early as 1894, it was not until 1898 that national organizers were sent into the three fields in large numbers to organize thoroughly the territory. They went among men not wholly unfamiliar with labor organizations, for the anthracite mine workers had an experience in this direction which extended as far back as 1849. It is not intended to give here in detail the history of the labor movement among the anthracite miners. This has been done in an excellent manner by Dr. G. O. Virtue in "The Anthracite Mine Laborers," Bulletin of the Department of Labor, No. 13, November, 1897. Therefore, only brief reference is made to the more important aspects of the trade-union movement in the hard coal fields.

Although coal mining had been undertaken in the anthracite region as early as 1820, (<sup>a</sup>) no indications of organization among the miners are found until 1849, when Bates Union, so named after John Bates, the leader of the men, undertook a strike for an increase in wages. Dissension among the members and the faithlessness of their leader, who is said to have absconded with the funds in the treasury, contributed to the loss of the strike and led to the destruction of the organization. It was composed principally of miners in the Schuylkill field.

Ten years later, about 1859, the miners of the Forestville Improvement Company formed a local union for mutual improvement, which was soon imitated by the mine workers of the other anthracite districts. At this time the total number of employees was about 10,000. The growth of these locals was retarded and nearly destroyed by the breaking out of the civil war, but at the close of the war there came renewed activity, and in 1868 we have accounts of a general convention of representatives from all three fields, meeting to consider the fall in prices and the problem of overproduction of coal. Wages had been reduced the previous year, and now further reductions were threatened. This condition had been brought about principally by the unrestrained competition, or rather speculation, which the close of the war ushered in, with the release of capital for investment and of men for work. It was marked by a general extension, outside as well as inside the anthracite region, of the railroads which transported to market the larger part of the product of the mines. This railway construction not only opened up new markets, but brought into operation such a large number of mines that all the evils of overproduction soon became prominent within the fields. The total output of the anthracite region in 1860 was 8,500,000 tons. This had nearly

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<sup>a</sup>The first shipment was made by canal in that year by the Lehigh Coal and Mining Company.



doubled by 1870, the production in that year exceeding 16,000,000 tons. This increase came at a time, too, when bituminous coal was coming into more general use in manufacturing throughout the East, thus weakening the demand for the product of the anthracite mines.

Experience had taught the mine workers that overproduction meant falling prices and reduced wages. Their leaders began to see that it was to their best interests to regulate production rather than to wait until falling prices compelled them to strike against wage reductions. It was this clear conception of economic conditions that led to the formation of the Workingmen's Benevolent Association (afterwards known under a charter as the Miners and Laborers' Benevolent Association), which grew out of the general convention of 1868. Its constitution stated its objects as being to maintain a standard of wages, to provide for sick and disabled members, and to care for the widows and orphans.<sup>(a)</sup> John Siney was its president, and he no doubt introduced into its management the English labor-union methods, with which he had become familiar while working in a cotton factory in England previous to his coming to this country in 1863. He entered the mines at St. Clair. A year or two prior to the organization of the miners the operators had formed associations in each of the three fields, which were united under the Anthracite Board of Trade of the Schuylkill coal region. It is through this board that we first find the operators treating with the mine workers as to wages and conditions of employment. This was not brought about, however, until a strike had been begun by the miners' organization.

The first strike of the mine employees under the Workingmen's Benevolent Association was declared on July 1, 1868, ostensibly for the enforcement of the eight-hour law, which had just then been enacted by the State legislature through the efforts of the miners, but in reality with the object of depleting the market, which had been glutted by the preceding period of speculation and overproduction. The only apparent success of the strike was in the latter direction. Even this was temporary, for in May of the following year overproduction was as bad as ever. The operators now proposed a reduction in wages, but the association decided upon a suspension of mining, which became effective May 10. Its object was "the reduction or depletion of the surplus of coal already in the market, together with the preventing, if possible, the enormous oversupply that was going to the market, thereby not only keeping the price of labor down to last winter's prices, but would eventually compel either local suspension or reduction of wages, and in consequence local strikes." This was stated in the order of the Miners and Laborers' Benevolent Asso-

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<sup>a</sup> Article I of the constitution of the Summit Hill branch stated that "The object of the society is to make such arrangements as will enable the operator and the miner to rule the coal market."



ciation of June 9, 1869, directing the miners to return to work in all the districts where they "can agree with their employers as to basis and conditions of resumption." At the same time in reply to the general criticism with which the suspension had been met by the press, the order explained that "we do not nor have desired to run the coal too high in the market, but, on the contrary, we prefer the steady, healthy market which will afford to the operators and dealers fair interest on their investment, and at the same time receive for our share a fair day's wages for a fair day's work." In support of this position and to guard against future overproduction, certain restrictions were placed upon the men by the association, such as requiring the miners to load one car of coal less per day than formerly.

After a five weeks' suspension operations were resumed on condition that a sliding scale for regulating wages according to the selling price of coal would be established in the Lehigh and Schuylkill fields.<sup>(a)</sup> At this time contract miners working on the mammoth vein were receiving  $57\frac{1}{2}$  cents a ton (48 cubic feet), company miners (those working by the day) \$16 a week, and inside laborers \$14 a week. For the Lehigh field these wages were to prevail when coal sold for \$5 a ton at tidewater (Elizabethport), with an increase of 15 per cent for every \$1 advance above that price. In the Schuylkill field, Port Carbon was the basing point and \$3 a ton the selling price of coal. For every 25 cents increase over this price wages were to advance 5 cents a ton. Wages were not to be affected if the price at either basing point fell below the basis rate. On this sliding-scale arrangement the miners, during the remaining months of 1869, received 12 per cent more than the basis wages.

For 1870 the board of trade proposed that the basis in the Schuylkill field be made \$2 a ton. This meant to the miners a reduction in wages of from 25 to 40 per cent, and the association refused to consider it. In January the board made a more favorable proposition, but still provided for a reduction in wages. The association insisted upon a continuance of the \$3 basis, and on April 2 the Schuylkill operators ordered a lockout, which continued until August 1. The mines in the Lehigh and Wyoming fields continued in operation. In July an agreement was reached on the old \$3 basis, but with an  $8\frac{1}{4}$  per cent sliding scale for each movement of 25 cents in the price of coal. A still more important change was made; wages were now to be affected if the price fell below the basis just the same as when the price went above the basis. The price of coal soon fell below the basis and remained there, with the result that the miners were forced to accept reductions instead of securing increases as in the previous year.

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<sup>a</sup> The miners of the Wyoming field had not taken a very prominent part in the suspension, being induced by higher wages to continue at work, and in consequence they did not secure the sliding scale.



Out of this suspension came what is believed to be the first signed joint agreement in the history of coal mining in this country. It was entered into July 29, at Pottsville, between a committee of the Workingmen's Benevolent Association, representing the mine workers, and a committee of the Anthracite Board of Trade, representing the operators. On the part of the association it was agreed not to sustain a man discharged for incompetency, bad workmanship, bad conduct, or other good cause. Each man was to work regularly, and miners earning designated amounts above \$100 a month, excluding expenses, were to accept a reduction in wages ranging from 10 to 40 per cent. On the part of the operators it was agreed not to discharge any man or officer for actions or duties imposed upon him by the Workingmen's Benevolent Association. For obtaining the monthly prices of coal upon which wages were based the president of the board of trade and the president of the association of Schuylkill County "shall meet (on the) 20th day (of) each month and select five operators, who shall, on the 25th instant following, produce a statement, sworn or affirmed to, of the prices of coal at Port Carbon for all sizes above pea coal. The five operators shall be selected from a list of those shipping over 40,000 tons annually, and none shall be selected a second time until the list is exhausted. The price of coal so obtained shall fix the rates of wages for that month." The agreement was signed by five operators and five miners.

It was not long, however, before charges of violating the agreement were made by each side against the other, following continued overproduction which kept both prices and wages low. When the working of the sliding scale in 1870 resulted in a decrease instead of an increase in wages, the leaders found it impossible to control the mine workers, and at the beginning of 1871 they went out on a strike which involved the entire anthracite region. In the Wyoming field, where the sliding scale had never been in force, the miners struck against a proposed reduction in wages equivalent to 34 per cent on contract work. Ignoring the association, the operators of the Schuylkill field attempted to treat directly with their employees, but in this they failed. Next they began the importation of new men to operate their mines, which action was followed by riots and the calling out of the militia. Securing possession of the arms of the soldiers, the miners marched to every mine where work had been resumed with nonunion men and compelled them to suspend operations.

On April 17, through the efforts of Eckley B. Coxe, an operator at Drifton, and President Siney, of the Workingmen's Benevolent Association, a joint committee of miners and operators, representing the three fields, met at Mauch Chunk in the hope of arbitrating the questions in dispute. The most important questions were those concern-



ing wages and, of course, the sliding scale; the attitude of the operators toward the miners' organization, and the interference of the association with nonunion men and with the operation of the mines. No agreement could be reached on any of these points by the committee, but one month later the decision of Judge William Elwell, who had been previously agreed upon as umpire, proved satisfactory to both sides to the dispute and mining operations were resumed. In the umpire's decision the sliding scale for the Schuylkill field was to be 1 cent for each 3 cents rise and fall in the price of coal, with a \$2.75 basis, but if the price of coal fell below \$2.25 there was to be no further fall in wages. The other questions were to be submitted to arbitration boards, one in each of the three fields, to be composed of three operators and three miners, with an umpire for each field, if such an official was found necessary.

Before the end of the year both operators and miners were disregarding the award. There were local strikes for increased wages, which some of the operators at once granted. At one or two collieries, when the price of coal fell below \$2.75, the miners refused to accept a corresponding reduction in wages. In not a few cases the advice of the leaders, who endeavored to hold the men to their agreement, was disregarded. Despite these and other difficulties the agreement was renewed at joint meetings of committees representing the board of trade and the Workingmen's Benevolent Association until 1874. For 1872 the basis was made \$2.50, and wages were not to fall below the price set for more than two months of the year. Prices and wages were fairly well maintained until the industrial depression, which began in 1873, could no longer be prevented from affecting prices and wages in the anthracite industry, and the operators proposed a reduction for that year of from 10 to 20 per cent. On January 1 a six months' strike was begun by the miners of the Lehigh and Schuylkill fields, which terminated in the complete surrender of the miners upon the terms of the operators. The Workingmen's Benevolent Association was destroyed, never to be heard from again, and it was to be many years before the anthracite mine workers were to recover sufficiently from their loss to attempt another such organization.

There were many causes that contributed to the failure of the trade-union movement in the anthracite region. Conspicuous among these was the inability of the parties to the agreement to control the acts of all producers of anthracite despite the fact that the exceedingly small area in which the industry was confined was conducive to the development of a strong organization among those engaged in hard-coal production. Within every industry there is always to be found a few individuals whose self-interest leads them into committing acts that greatly injure the industry as a whole. This was true of anthracite production then as it is still, although to a less extent. The individual



operator, whose greater self-interest was in open and ruthless competition, could not be made to consider the greater good of the industry as a whole, and it is largely the fact that the organized operators and miners could not control this "independent" operator which explains the downfall of the early trade-union movement in the anthracite-coal industry. This "independent" operator was permitted to play the temporary self-interest of district against district, of operator against operator, and of miner against miner to his own selfish ends. Figuratively, he applied the spark to the already gathered fuel of race animosity and industrial competition. The result was the blazing up of a bitter feeling of enmity not only among the operators and among the miners themselves in the different districts and even within the same field, but between the two producing classes. Thus he was able to prevent the organized operators from gaining control not only of the anthracite markets but of coal production itself and, in consequence, of prices and wages. All during the attempt of 1868-1876 to work out some kind of a satisfactory cooperative plan of production only once were the mine workers of all the districts united in a common cause, and this was during the strike of 1875, when the industrial depression which had set in two years previous rendered it too late. Nor were the operators united. While as a class they had organized the Anthracite Board of Trade, it was confined, for the most part, to the operators in the Schuylkill and Lehigh fields, many of the Wyoming operators being beyond its jurisdiction. These "independent" operators were usually the ones who played havoc with the well-wrought plans of the miners' union and the operators' organization to benefit the greater number engaged in the industry. They did this in 1869 by temporarily advancing wages, when the Lehigh and Schuylkill miners suspended work to deplete the oversupplied markets. The object, of course, was to increase their output and thus their profits at the expense of their fellow-operators in the lower fields. The same thing happened in 1870. When the Schuylkill men, in that year, again entered upon a suspension, the Wyoming and Lehigh miners kept at work through a compromise with their employers. In 1871, when the Wyoming operators found they could not pay these higher wages while all three fields were in operation, they attempted a reduction, which the miners opposed by instituting a strike. Believing they now had an opportunity to unite the mine workers of all three fields the Schuylkill miners, despite the agreement they had entered into with their operators, joined the Wyoming men on strike. With the entire region idle the self-interest of the operators in the Wyoming field led them to offer their men the old rates of wages, and they attempted to resume work after a four weeks' strike.

There now entered into the situation another contributing cause of the overthrow of the trade-union movement among the anthracite



miners. This was the railroads, which heretofore had confined their operations to the transportation of coal, buying coal lands, and entering upon mining operations. The repeated strikes and suspensions and lockouts had made the transportation of coal so uncertain that the revenues of the railroads were considerably affected by the unexpected withdrawals of shipment and the interference with the business of the companies which resulted from the industrial disturbances. The interests of the railroads—that of the Reading in particular, which had entered the region as early as 1842—now seemed to point to the proprietorship of the mines if they were to be certain of the product for transportation, as other railroads were rapidly being built into the region and were beginning to compete for the traffic. The first indication of the changed policy of the railroads was in the raising of freight rates on coal (the Reading trebled its rates) when the operators attempted to resume mining in 1871. This made the price of anthracite too high in the markets and of course stopped its production. The railroads had the upper hand in the contest which was now begun, through their control of freight rates, which a legislative committee, appointed to investigate the situation, declared was not being exercised illegally. Many of the operators were forced to sell to the railroad companies, beginning a period of rapid railway purchase of coal lands with the present-day result that there are now fewer than seventy-five “independent” operators in the entire region. This direct entrance of the transportation companies into the situation brought a more determined and bitter opposition to the miners’ organization and contributed materially, within a very few years, to the overthrow of the Workingmen’s Benevolent Association.

By this time the organization itself had become greatly weakened through dissensions among the members of the different districts. The Schuylkill miners were constantly complaining that they could put no faith in the men of the northern field. In fact, the Schuylkill mine workers refused to abide by the joint agreement of 1871 unless they could be assured that the Wyoming and Lehigh employees would observe good faith with them. Otherwise they threatened to make their own agreements with the operators regardless of the interests of the other mine workers. It was a heterogeneous mass of men with which the leaders had to deal, the different races presenting complicated interests that required the best efforts of the ablest men to harmonize, and when the direction of the anthracite miners passed into the hands of John Siney, who was elected to the presidency of the Miners’ National Association in October, 1873, it needed no prophet, even at that day, to foretell the end of the Workingmen’s Benevolent Association. The success of previous strikes, the adoption of the sliding scale, the passage of the first mine-inspection law, and the securing of other direct advantages for the mine employees had led



the officers into a too arrogant use of their power. They caused their organization to become embroiled in politics, and the interests of the mine workers were in consequence soon being injured by political parties playing the miners and operators against each other.

Where public sympathy with the movement was not lost in these ways it was greatly weakened by the widespread lawlessness which prevailed throughout the region about this period. Much of it necessarily accompanied the numerous strikes set in action by the Workingmen's Benevolent Association, but to this organization was also attributed, by an indiscriminating public, the burning of breakers and the scores of murders committed by the "Mollie Maguires," a secret, oath-bound organization which flourished in the region from 1866 to 1876.<sup>a</sup> Although the association had no direct relation with the society yet some of the members of the former belonged to the "Mollie Maguires," and when the terror which the depredations of the latter had given rise to was relieved by the conviction and hanging of the criminals, public indignation was skillfully directed in taking vengeance upon the miner's organization.

The quarter of a century following the destruction of the Workingmen's Benevolent Association in 1875 has little of interest in tracing the trade-union movement among the anthracite miners. For the greater part of this period the great body of mine workers remained unorganized. Here and there local or sectional unions would spring up and now and then grow formidable, but never sufficiently strong to restore the joint conference plan for regulating wages and conditions of employment. In 1886 the Miners and Labor-

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<sup>a</sup>The "Molly Maguires" were principally Irish immigrants, who brought the society with them from Ireland, where it had been formed as the Ancient Order of Hibernians, under Robert Emmet, for the purpose of freeing their native land from British control. None but Catholics were eligible to membership and despite the opposition of the Catholic church and its priests in the anthracite region, the society continued in existence nearly ten years with the worst possible elements in control. Its secret meetings, which planned murder and incendiarism, were conducted with solemn religious rites, and its vengeance seemed to be directed mainly against mine superintendents and bosses. A number of murders of such officials were traced to the society, but in every case alibis would be sworn to in the trial by other members of the society and convictions were rare. So daring did they become, and so atrocious were the crimes committed that detectives were employed to ferret out the criminals. One of these was John McParlin, an Irishman and a Catholic, who succeeded, in 1873, in becoming a member of the society under the name of James McKenna. He continued a member for three years before his real purpose was discovered and he was forced to flee. He had gained the confidence of the leaders, however, and had become secretary of the Shenandoah branch of the society. The evidence he was thus able to furnish of the operations of the society led to the arrest of 70 members. With his mass of undisputed testimony and through some of the prisoners turning state's evidence, 12 members of the society were convicted of murder in the first degree, 4 of murder in the second degree, 4 of being accessory to murder, and 6 of perjury.



ers' Amalgamated Association, which had been formed among the Lehigh and Schuylkill miners about 1878, and the Knights of Labor, which had entered the Wyoming field about the same year, joined their forces in an attempt to correct some of the abuses invariably growing out of the absence of a strong union among the men. A joint committee of the two organizations gained slight advances in wages from the Reading company. In the following year they demanded of the Lehigh operators that the basis of the sliding scale, which had never been formally abandoned, be made \$4 instead of \$5, with other changes which were intended to benefit the miners. An unsuccessful strike followed in that district. In January, 1888, a seven weeks' strike against the Reading company failed. Both organizations of mine workers were destroyed for all practical purposes.

By 1900 we find the United Mine Workers of America with about 8,000 members in the three anthracite districts, being strongest in the Wyoming field. This was the first national organization of miners to include the anthracite mine workers in its membership. It began a six weeks' strike among the hard-coal miners on September 17, of that year, which involved, before its close, 130,000 of the 140,500 men and boys then employed in the industry. A 10 per cent increase in wages, including in the Wyoming and Lehigh fields a reduction in the price of powder from \$2.75 to \$1.50 a keg, and the abolishment of the sliding scale in the Lehigh and Schuylkill fields were secured along with other improved conditions of employment. In the eighteen months that followed, the officers of the United Mine Workers made numerous and repeated attempts to secure the adoption, by the railroad mining companies, of the joint conference plan for deciding upon wages and general conditions of employment, but all of them met with failure, the presidents of the mining companies refusing to enter into such an arrangement. Finally, on May 12, 1902, another strike laid the entire anthracite region idle for more than five months. The formal demands of the mine workers were for a 20 per cent increase in wages for contract miners, a reduction of 20 per cent in the hours of labor of per diem employees, the establishing of 2,240 pounds as a mining ton, and the submission of all questions at issue to disinterested parties for arbitration. The real issue, however, came to be the recognition of the union. Through the mediation of President Roosevelt the miners resumed work on October 23, with the understanding that the questions in dispute would be submitted to a commission appointed by the President. After a five months' investigation of the conditions this Commission (<sup>a</sup>) reported on March 18, 1903, granting a 10 per cent

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<sup>a</sup> This Commission was composed of Judge George Gray, chairman; Hon. Carroll D. Wright, Gen. John M. Wilson, Bishop John L. Spalding, Mr. Edgar E. Clark, Mr. Thomas H. Watkins, and Mr. Edward W. Parker.



increase in wages to contract miners and certain other specified classes of employees, and a reduction of hours of labor to those employees paid by the hour, day, or week; reestablished a sliding scale; presented a plan for the employment of check weighmen and check-docking bosses, and provided for a permanent joint committee of six, three representatives of the operators and three of the miners, to be called a board of conciliation.

Although the Commission in its report states that it does not consider the question of recognition of the United Mine Workers to come within the scope of its jurisdiction, nevertheless this union is virtually recognized in that provision for the board's organization, which provides that "if there shall be a division of the whole region into three districts, in each of which there shall exist an organization representing a majority of the mine workers of such district, one of said board of conciliation shall be appointed by each of said organizations." This committee is to have referred to it any difficulty or disagreement arising under the Commission's award, whether as to its interpretation or application, or in any way growing out of the relations of the employers and employed, which can not be settled or adjusted by consultation between the superintendent or manager of the mine or mines, and the miner or miners directly interested or is of a scope too large to be so settled or adjusted. It is provided that this board of conciliation shall take up and consider any question referred to it as aforesaid, hearing both parties to the controversy, and such evidence as may be laid before it by either party; and any award made by a majority of the board is to be final and binding on all parties. In case the board is unable to decide any question submitted or point related thereto, that question or point is to be referred to an umpire, to be appointed, at the request of the board, by one of the circuit judges of the third judicial circuit of the United States, whose decision is to be final and binding in the premises. The membership of the board is at all times to be kept complete, either the operators' or miners' organization having the right, at any time when a controversy is not pending, to change their representation thereon. At the hearings before the board the parties may be represented by such person or persons as they may respectively select. No suspension of work is to take place, by lockout or strike, pending the adjudication of any matter so taken up for adjustment.<sup>(a)</sup> This board has since been organized by the operators of each district selecting a representative and by the miners choosing the president of the United Mine Workers in each of the three districts. How far this board will succeed in accomplishing the arduous task which lies before it is a question for the future.

Although a foundation is thus being laid in the hard cold region upon which some kind of a joint conference structure is likely sooner

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<sup>a</sup> Pages 67 and 68, Report on the Anthracite Coal Strike of 1902.



or later to be erected, the 147,000 hard coal mine employees, a majority of whom are members of the United Mine Workers, do not at present work under joint agreements as to wages and conditions of employment; nor does the larger number of coal mine employees in Colorado, Arkansas, Indian Territory, New Mexico, Washington, Montana, Texas, Michigan, Maryland, Virginia, West Virginia, and the central and western Pennsylvania soft coal fields. In at least 10 of the more important of the 28 coal-producing States, however, the trade union movement between the employers and the employed in the coal mining industry has reached the point of joint annual bargaining for the purchase and sale of mine labor and the conditions of the same. These are Ohio, Indiana, Illinois, and western Pennsylvania, included in the interstate movement of the central competitive territory—Iowa, Kansas, Missouri, and to a lesser extent Kentucky, Tennessee, and Alabama. Some agreements are also entered into in the central Pennsylvania field, and in portions of West Virginia, Michigan, and one or two other States. In brief, of the 485,000 coal mine employees of the United States in 1902, producing in that year 300,000,000 tons of coal, about 275,000 are members of the United Mine Workers of America, and of the latter about 150,000 work under agreements with their employers. According to claims of the officials of the organization about 75 per cent of all the mine workers in the United States are members of the union; more than 85 per cent of the total of 485,000 are governed by union scales and work under its conditions of employment, while fully 90 per cent of all the mine employees would go out on strike if the United Mine Workers decided a national suspension of coal mining to be necessary.

In this study of the trade union movement among the coal mine workers the attempt has been made to point out the causes of the failures and successes which have, at different times, marked its growth. In any consideration of the present phenomenal success of the United Mine Workers of America it should not be forgotten that it has come about during a period of remarkable industrial activity which of itself would have brought to the mine employees some if not all of the increased wages and improved conditions of employment which they now enjoy. While this organization has been the means of accomplishing great good, it is believed that the real test of its permanency and continued usefulness will come, as it has always come to similar organizations, during a period of industrial depression when wage reductions set in to accompany a general fall in prices. If the organization is able, under such conditions, to hold the men together and to observe inviolate the terms of its agreement with the employers, no greater test is likely to be required of it. We have seen that no other coal miners' organization has ever been able for long to meet this test.



## AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYEES.

[It is the purpose of this Bureau to publish from time to time important agreements made between large bodies of employers and employees with regard to wages, hours of labor, etc. The Bureau would be pleased to receive copies of such agreements whenever made ]

### AGREEMENT BETWEEN PHILADELPHIA TYPOTHETÆ AND PHILADELPHIA TYPOGRAPHICAL UNION NO. 2.

This agreement, made the first day of December, A. D., 1903, between the Typothetæ of Philadelphia, hereinafter called the party of the first part, and Philadelphia Typographical Union No. 2, hereinafter called the party of the second part:

Witnesseth, that the parties hereto, for the purpose of preventing confusion and misunderstanding between themselves, and for the purpose of establishing a permanent scale of wages to be paid to the party of the second part, promise and agree that the scale of wages hereto attached is accepted and shall go into force on the first day of January, 1904, and shall continue in force as specified, viz.:

An increase of \$1 per week on the scale for time workers (making the minimum \$17 per week), and an increase of \$1 per week on the scale for linotype operators (making the minimum \$19 per week), to take effect January 1, 1904; and a further increase of \$1 per week on each of the above (making the minimum scale for time workers \$18 per week and the minimum scale for linotype operators \$20 per week), to take effect October 1, 1904, this to be the prevailing rate until May 31, 1905.

The members composing the party of the first part agree to pay to the members of the party of the second part employed by them wages at the said scale.

The members of the party of the second part promise and agree to work for and accept wages at the said scale, and to make no demand for increase of wages or changes in the hours of employment, or any other demand whatsoever, upon the party of the first part during the term of this agreement.

#### IN REFERENCE TO THE EIGHT-HOUR DAY.

It is agreed that all questions as to a shorter work-day shall be subject to and governed by such agreement or settlement as may in the future be arrived at through joint conference of the United Typothetæ of America and the International Typographical Union.

The party of the second part agrees to furnish to the party of the first part a printed copy of all shop rules and regulations under which composing rooms are to be operated, and the said rules and regulations shall not become operative until they have been approved by the party of the first part.



A board of arbitration shall be created under this agreement to consist of three members from the party of the first part and three members from the party of the second part, who shall each have plenary powers over the party of the second part and plenary powers over the party of the first part. Such board of arbitration shall have power to adjust, settle and regulate all differences arising between the parties to this agreement not herein provided for. Said board of arbitration shall settle all questions coming before it on a fair and common sense basis. Should they be unable to determine any question, they shall have power to call in an impartial arbitrator whose decision shall be final. No question submitted to this board for settlement shall be considered under fifteen days unless by the unanimous consent of the board. All questions submitted to this board must be in writing, and may be handed to any member of the board, whose duty shall be to immediately convey notice to each of the other members.

It is mutually agreed that the terms of this agreement shall continue in force for a further period of two years from May 31, 1905, unless either party hereto shall, before March 1, 1905, notify the other party in writing of its intention to terminate the same.

#### LANSTON MONOTYPE MACHINES.

The question of piecework on Lanston machines is, under this contract and scale, left open for future adjustment between these two organizations or such committees or arbitrators as shall be duly appointed by them.

In witness whereof, the parties hereto have hereunto set their official seals, duly attested the day and year first above written.

For Typographical Union No. 2,  
ALFRED D. CALVERT,  
*President.*

CHARLES S. CLAYTON,  
*Secretary-Treasurer.*

For the Philadelphia Typothetæ,  
EDWARD STERN,  
*President.*

E. LAWRENCE FELL,  
JOHN MACINTYRE,  
*Recording-Secretaries.*

C. H. CLARKE.

A. H. SICKLER.

W. A. MACCALLA.

T. S. LEACH.

#### AGREEMENT BETWEEN TYPOTHETÆ OF PHILADELPHIA AND PHILADELPHIA PRINTING PRESSMEN'S UNION NO. 4.

This agreement, made the twenty-fifth day of February, A. D., 1903, between the Typothetæ of Philadelphia, hereinafter called the party of the first part, and the Philadelphia Printing Pressmen's Union No. 4, hereinafter called the party of the second part:

Witnesseth, that the parties hereto, for the purpose of preventing confusion and misunderstanding between themselves, and for the purpose of establishing a permanent scale of wages to be paid to the party



of the second part, promise and agree that the scale of wages hereto attached is accepted and shall go into force on the seventh day of September, 1903, and shall continue in force until May 31, 1905.

The members composing the party of the first part agree to pay to the members of the party of the second part, employed by them, wages at the said scale.

The members of the party of the second part promise and agree to work for, and accept, wages at the said scale, and to make no demand for increase of wages or changes in the hours of employment, or any other demand whatsoever, upon the party of the first part during the term of this agreement.

The party of the second part agrees to furnish to the party of the first part a printed copy of all shop rules and regulations under which press-rooms are to be operated, and the said rules and regulations shall not become operative until they have been approved by the party of the first part.

A board of arbitration shall be created under this agreement to consist of three members from the party of the first part and three members from the party of the second part, who shall each have plenary powers over the party of the second part and plenary powers over the party of the first part. Such board of arbitration shall have power to adjust, settle and regulate all differences arising between the parties to this agreement not herein provided for. Said board of arbitration shall settle all questions coming before it on a fair and common sense basis. Should they be unable to determine any question, they shall have power to call in an impartial arbitrator whose decision shall be final. No question submitted to this board for settlement shall be considered under fifteen days, unless by the unanimous consent of the board. All questions submitted to this board must be in writing, and may be handed to any member of the board, whose duty shall be to immediately convey notice to each of the other members.

It is mutually agreed that the terms of this agreement shall continue in force for a further period of two years from May 31, 1905, unless either party hereto shall, before March 1, 1905, notify the other party in writing of its intention to terminate the same.

In witness whereof, the parties hereto have hereunto set their official seals, duly attested the day and year first above written.

In the presence of  
 E. LAWRENCE FELL,  
 WM. F. FELL,  
 A. H. SICKLER,  
 J. R. HATHAWAY,  
 FRANK J. HOLBY,  
 MORTON B. HIRSHY,  
 JOHN MACINTYRE.

For the Philadelphia Typothetæ,  
 EDWARD STERN,  
*President.*

MARTIN P. HIGGINS,  
*Pres. I. P. P. A. U.*  
 JAMES E. CALLERY,  
*Pressmen's Union No. 4.*  
 RALPH EZEKIEL.  
 HARRY J. WIGO.  
 FRED MCCARTHY.

#### SCALE OF WAGES REFERRED TO IN THE FOREGOING AGREEMENT.

Cylinder pressmen shall receive not less than nineteen dollars (\$19) per week for running not more than two flat bed presses. Bed and platen pressmen shall receive not less than sixteen dollars (\$16) per week.



Pressmen working on presses with self-feeding attachments shall receive not less than twenty-one dollars (\$21) per week for running two presses of that character.

Pressmen in charge of web presses in book and job offices shall receive not less than twenty-five dollars (\$25) per week for running one press, twenty-two dollars (\$22) per week for the first three months and then the full wage scale.

Fifty-four hours shall constitute a week's work; said hours of labor shall be between the hours of 7 a. m. and 6 p. m. In all cases time after 6 p. m. shall be computed as overtime.

Overtime work between the hours of 6 o'clock p. m. and 12 o'clock midnight, and on the following holidays: New Year's Day, Memorial Day and Thanksgiving Day, shall be paid for at the rate of time and half-time. Overtime work between the hours of 12 o'clock midnight and 7 o'clock a. m. and on the following holidays: Fourth of July, Labor Day, and Christmas Day, and on Sunday, shall be paid for at the rate of double time.

A pressman who loses time with permission of his employer shall not be docked more than the regular scale of wages.

The foreman of the press room is to be recognized as the one in authority.

## AGREEMENT BETWEEN THE TYPOTHETÆ OF PHILADELPHIA AND THE PHILADELPHIA PRINTING PRESS ASSISTANTS' AND JOB PRESSMEN'S UNION NO. 11.

This agreement, made the twenty-eighth day of October, A. D., 1903, between the Typothetæ of Philadelphia, hereinafter called the party of the first part, and the Philadelphia Printing Press Assistants' and Job Pressmen's Union No. 11, hereinafter called the party of the second part:

Witnesseth, that the parties hereto, for the purpose of preventing confusion and misunderstanding between themselves and for the purpose of establishing a permanent scale of wages to be paid to the party of the second part, promise and agree that the scale of wages hereto attached is accepted and shall go into force on the first day of January, 1904, and shall continue in force until May 31, 1905.

The members composing the party of the first part agree to pay to the members of the party of the second part, employed by them, wages at the said scale.

The members of the party of the second part promise and agree to work for, and accept wages at, the said scale, and to make no demand for increase of wages or changes in the hours of employment, or any other demand whatsoever, upon the party of the first part during the term of this agreement.

The party of the second part agrees to furnish to the party of the first part a printed copy of all shop rules and regulations under which press-rooms are to be operated, and the said rules and regulations shall not become operative until they have been approved by the party of the first part.

A board of arbitration shall be created under this agreement to consist of three members from the party of the first part and three members from the party of the second part, who shall each have plenary powers over the party of the second part and plenary powers over



the party of the first part. Such board of arbitration shall have power to adjust, settle and regulate all differences arising between the parties to this agreement not herein provided for. Said board of arbitration shall settle all questions coming before it on a fair and common sense basis. Should they be unable to determine any question, they shall have power to call in an impartial arbitrator whose decision shall be final. No question submitted to this board for settlement shall be considered under fifteen days unless by the unanimous consent of the board. All questions submitted to this board must be in writing, and may be handed to any member of the board, whose duty shall be to immediately convey notice to each of the other members.

It is mutually agreed that the terms of this agreement shall continue in force for a further period of two years, from May 31, 1905, unless either party hereto shall, before March 1, 1905, notify the other party in writing of its intention to terminate the same.

In witness whereof, the parties hereto have hereunto set their official seals duly attested the day and year first above written.

E. LAWRENCE FELL,  
T. S. DANDO,  
*For the Typothetæ of Philadelphia.*

THOMAS E. KELLEY,  
JOSEPH J. MCGARRY,  
*For Philadelphia Printing Press Assistants'  
and Job Pressmen's Union No. 11.*

Witness present and referee in arbitration,  
ALFRED D. CALVERT.

#### SCALE OF WAGES WHICH HAS BEEN ADOPTED AS PER FOREGOING AGREEMENT.

	Per week.
Cylinder press feeders .....	\$10. 00
Cylinder press feeders (perfecting) .....	11. 50
Helpers (automatic feeder) on one or two machines .....	11. 50

#### Job pressmen.

	Per week.
Running one platen press .....	\$10. 00
Running two platen presses or more .....	12. 00

Fifty-four hours to constitute a week's work.

Hours of labor to be between 7 a. m. and 6 p. m.

Overtime to be time and half-time to 12 p. m. and double time thereafter.

Night work: Fifty hours to constitute a week's work.

Holidays to be paid for as follows: Time and half-time on New Year's, Memorial Day, and Thanksgiving. Double time to be paid for work on Fourth of July, Labor Day, and Christmas Day.

A feeder or job pressman who loses time with permission of his employer shall not be docked more than the regular scale of wages.

The foreman of the press room is the one to be recognized as the one in authority.

#### ARBITRATION.

As has been the case so frequently in the past, the representatives of the Typothetæ and of the Printing Press Assistants' and Job Pressmen's Union were unable to reach a mutually satisfactory agreement, and the matter was finally referred by both parties to Mr. Alfred D. Calvert, President of Philadelphia Typographical Union No. 2, as



umpire, thereby establishing a new and most unusual precedent in cases of this kind. The decision of Mr. Calvert follows in full:

MESSRS. E. LAWRENCE FELL and THOMAS S. DANDO,  
*Representing the Typothetæ of Philadelphia.*

MESSRS. THOMAS E. KELLY and JOSEPH J. MCGARRY,  
*Representing Philadelphia Press Assistants'  
and Job Pressmen's Union No. 11.*

*Gentlemen:* It is with pleasure that I submit a report as umpire in the matter of the scale of wages that has been the subject of controversy between your respective organizations.

Cylinder press feeders .....	\$10. 00
An increase of \$1.00 over the present scale and a reduction of 50 cents from the amount asked.	
Cylinder press feeders (perfecting) .....	\$11. 50
Amount asked for granted.	
Helper (automatic feeders) .....	\$11. 50
An increase of 50 cents over the scale at present paid in Union offices. \$1.00 less than asked for.	

The question of a proper wage for helpers on automatic feeders, having taken up more than half the time of the conference, demands that some reference be made to it here. The automatic feeders having been introduced into Philadelphia press-rooms within the last two years, has been, to a greater or lesser extent, an unknown quantity to both parties. The employer having put in a costly piece of improved machinery naturally expects increased returns on his investment. The mechanic, or mechanics, employed in caring for the machine with the improved attachment likewise expect, and are entitled to, an increase in wages commensurate with increased responsibility. The mechanic is to be recompensed for increased diligence and skill required. The employer, on the other hand, has a machine for which he has annually to allow a certain percentage for depreciation. There are other matters which might be taken into consideration, but for the present these are sufficient as serving to illustrate that the employer, however willing to increase wages, is bound by limitations; and that the employee having in mind the successful operation of the plant in which he is employed, should endeavor to secure his full share, but should never be unreasonable in his demands.

To all appearances the employers have allowed a certain reasonable percentage of their operating expenses to go to the wages fund. In absolute disregard of the ethics of trade unionism, as I understand them, and certainly in violation of the cardinal principles of the brotherhood of man, one of the unions in the printing trades has taken advantage of its subordinate body in this very matter.

To illustrate: The percentage of skill and care required to operate a press equipped with an automatic feeder has increased about equally on the pressman and his helper. The pressmen, by right of priority in the conference, exaggerated his increased responsibility, and so secured an increase in wages averaging twelve to sixteen per cent.; the helper with a much lower wage secured an increase averaging between four and five per cent. This is so manifestly unfair that I trust the next conference on the scale of wages will take from him who unjustly received and give to him who justly deserves.

Rotary press helpers not being in controversy, that matter was passed over.



### Job pressmen.

By unanimous consent "platen" was substituted as proper name in reference to all job presses.

Running one platen press .....	\$10.00
An increase of \$1.00 over the present.	
A reduction of \$1.00 from the amount asked.	
Running two or more presses .....	\$12.00
Amount asked for granted.	

I would call your attention to an omission which might at some later day vex both parties—that is, the failure to designate the hours to be worked at night.

Thanking you for the great honor you have conferred on me in counting me worthy to act in this capacity and trusting your relations in the future will always be such as to make an umpire unnecessary, believe me with kindest regards,

Yours sincerely, (Signed) ALFRED D. CALVERT.

## RULES ADOPTED NOVEMBER 12, 1887, BY THE SHOE MANUFACTURERS' ASSOCIATION OF PHILADELPHIA, CONCERNING THE RELATIONS BETWEEN EMPLOYERS AND EMPLOYEES.<sup>(a)</sup>

**RULE 1.** The right of the manufacturer to employ or discharge employees must be acknowledged.

*Comment.* This rule means that the right to employ and to discharge laborers belongs to those who own the business. There could be no other rule. No prudent man would invest capital in business if he could not control it by employing the laborers he thought necessary and proper for conducting it. This is the inseparable incident of capital.

**RULE 2.** Employers or employees must not discriminate for or against any individual because he or she is or is not a member of any organization.

*Comment.* No employer shall discharge or refuse to hire a man or woman because he or she is or is not a member of any organization. Nor shall any man or woman refuse to work with or for any person because he or she is or is not a member of any organization. This is but equal justice to all, and will promote the freedom of conscience we boast of as American citizens.

**RULE 3.** Each manufacturer is to regulate his or their working hours, but in no case shall a day's work exceed ten hours, except in two or three departments, in order to fill orders on time.

*Comment.* Each manufacturer shall say at what time hands shall begin work in the morning, and when they shall stop, not exceeding the time named in the rule. When extra work is to be done, the manufacturer shall direct it in order to meet the engagement calling for it. But for the extra labor performed the employee shall receive extra pay. Business will decide the departments.

**RULE 4.—Section 1.** Shop meetings to be held only after working hours.

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<sup>a</sup> The chairman of the executive committee of the Shoe Manufacturers' Association of Philadelphia states that under the workings of these rules no strike has taken place in 16 years.



*Comment.* The purpose of this rule is that there may be no interference with business.

Sec. 2. Grievance committee of shops not to meet oftener than once a week.

*Comment.* The committee need not meet once a week unless it has business.

RULE 5. Pending the discussion and decision of any difference or dispute, there shall be no lockout, strike, stoppage or cessation of work by either employer or employed.

*Comment.* It is the object of this rule to substitute reason and right instead of violence, in whatever form, by either employer or employed; and during no dispute or difference shall the work in any shop or department of it be stopped or interfered with.

If the interests of parties can not be so adjusted and harmonized that the parties can continue the relations of employer and employee, then, according to the real or supposed interests of the parties, they must separate, not in violence, but according to reason. This rule implies that in no case is it necessary to resort to lockouts, strikes or violent means in any form, it being the office of reason, acting according to the golden rule, to adjust and settle all human interests.

RULE 6. In case of a disagreement between employer and employee it shall be the duty of the grievance committee to settle, if possible, the matter in dispute; but in the event an agreement can not be reached the matter in dispute shall be submitted to the board of arbitration.

*Comment.* This rule is sufficiently plain without explanation.

RULE 7. There shall be no interference with the employment or wages of hands hired by the week, when the wages are satisfactory to the employer and employees, so that competent workmen may be protected.

*Comment.* Business requires that some "hands be hired by the week," and that wages are paid to the skill of the hand. It is the object of the rule to protect both the laborer and the manufacturer.

It is to give to the manufacturer the advantage of skilled labor, and to give to skilled labor a just remuneration. Of course the manufacturer may employ inferior skill and give it inferior remuneration. This may be important at some times, and for some purposes. It is the right of the manufacturer to determine how his business shall be conducted. Capital and labor should each receive its equitable reward.

If the wages are not satisfactory the hand may quit work; and if not satisfactory to the employer he may dismiss him.

With any other rule business could not be safely carried on.

RULE 8.—Section 1. The joint board of arbitration shall consist of seven members of the Manufacturers' Association actively engaged in manufacturing and seven employees working for members of the Manufacturers' Association; must come uninstructed, hear testimony, examine witnesses, and decide on the merits of the case. Said members shall serve for one year or until their successors are appointed or elected. Five members from each side shall constitute a quorum. A majority vote shall be final in all cases.

Sec. 2. No person shall be questioned or held accountable as individuals or as members of any organization for their actions or doings as arbitrators.

*Comment.* Seven manufacturers and seven employees compose the board. These are appointed by the respective associations. It is



required that the members of the joint board shall each be actively engaged as manufacturers of the association or actively engaged as employees of manufacturers of the association; were it otherwise manufacturers or employees might be eligible whose interest it would be to create strife rather than to promote harmony. Members of the joint board form what is similar to a jury, and what jury could give a fair verdict if its members were instructed how to decide before hearing the testimony?

Each arbitrator must be guaranteed that his freedom of opinion and conscientious action as an arbitrator will be fully protected by both the association of employers and employees; otherwise, qualified parties might hesitate to accept the position or act as their judgment and conscience dictated. When by the sides there is a difference of opinion, the same number of persons only on each side shall cast a vote. But when the vote is not by sides all at the meeting may vote, and the majority decides the question.

**RULE 9.** In case of a tie vote, each side shall select a disinterested person, and these two shall select a third person, and their decision shall be final.

*Comment.* In a warm contest both parties might not agree to a third person, and hence the provision of the rule. When the three persons are chosen, the majority vote cast by them shall be decisive and final.

**RULE 10.** The joint board of arbitration shall meet semimonthly, at such time and place as may hereafter be agreed upon. No complaints shall be considered unless stated in writing, and the causes of complaint are specified and signed by the complainant.

*Comment.* All parties seek to avoid trivial complaints. The rule requires the complaint to be in writing, in order that the person may see it in that form, and that the board may have something definite before it.

**RULE 11.** Complaints shall be presented to the board at the first meeting after the cause thereof shall arise, or it will be deemed that there are no grounds for complaint.

*Comment.* This rule is vigorous and might work hardship if the cause of complaint should arise just before a meeting. But there should be no delay. It is improper to introduce stale complaints.

**RULE 12.** No bill of wages will be received from any organization, but all bills shall originate with and be presented by either employer or employee on or before October 1 of each year, where any changes are desired, and shall be settled by November 1, to take effect 1st December following, and continue in force one year.

After the bill of wages has been presented the employer shall adjust with each full branch the difference asked by either party, and when all have been adjusted the shop organization shall approve and attest the bill. Up to this point there shall be no interference permitted on the part of the Manufacturers' Association or any other organization; but in case the difference can not be mutually adjusted by the employer and any branch or branches, these points of difference shall be stated in writing and submitted to the joint board of arbitration, and their decision shall be final and binding on both parties.

Where no bill is presented by October 1 of any year the old bill shall continue in force for another year, except in change of system, or introduction of machinery or new work between dates of annual



settlement of bills; in these cases the prices fixed shall be for the balance of term of general contract.

*Comment.* This rule recognizes the fact that the employer and employees of any branch know better what facilities there are for doing each kind of work in a factory, and what the labor is worth as it is given to them, than any outside party can, and also that their judgment is fair and not influenced by those whose interest it might be to interrupt instead of give them employment.

**RULE 13.** It is the manufacturer's exclusive right without arbitration to use whatever stock he thinks proper, to introduce whatever machinery he deems necessary, and divide and subdivide his work as he sees fit or his business may require, and it is the right of the employee to be paid just wages for the labor performed by him.

*Comment.* In order that a manufacturer may originate improvements and adopt those of others to meet competition of other localities, he must be guaranteed that he can manage his business without interference. On the other hand, these new demands must not encroach on just remuneration of the employee, but he must be paid for the labor he does.

**RULE 14.** The minutes of each meeting of the joint board of arbitration must be printed and posted in each factory within five days from the date of meeting.

*Comment.* That all employers and employees may be fully informed of the proceedings and decisions of the joint board of arbitration.

*Addendum.* If any difference shall arise hereafter touching any matter not provided for in the foregoing rules, such difference shall go before the board of arbitration for adjustment and decision.

## AGREEMENT BETWEEN PHILADELPHIA MEMBERS OF NATIONAL FOUNDERS' ASSOCIATION AND IRON MOLDERS' UNION OF NORTH AMERICA.

August 7th, 1903.

Whereas, the molders of Philadelphia have asked to have a minimum rate of wages of \$3.25 per day of nine hours, in place of the existing rate of \$2.90 per day of ten hours for all day workers, and a twenty per cent advance on all piece prices for a nine hour work day, and the coremakers have asked for a minimum rate of \$3.00 per day of nine hours for all day workers in place of the present rate of \$2.50 per day of ten hours;

Whereas, the foundrymen of Philadelphia believe that such an increase is without precedent and unfair; therefore, be it

*Resolved,* That this conference agrees as follows: The work day in the foundries of Philadelphia shall be nine hours for each day of the week and the minimum wages to be \$2.90 per day of nine hours.

*Resolved,* That this agreement go into effect as of June 3rd, 1903, and remain in force until June 3rd, 1904.

*Resolved,* That on June 3rd, 1904, the minimum wage rate for molders per day of nine hours is to be increased to \$3.00 per day.

*Resolved,* That on June 3rd, 1904, the minimum wage rate for skilled journeymen coremakers is to be increased to \$2.75 per day of nine hours. This is to apply in jobbing and machinery foundries only; the present rate of wages being paid to skilled journeymen coremakers is to be continued in force from June 3rd, 1903, until June 3rd, 1904.



*Resolved*, That all other existing conditions in the different foundries remain the same as during the past year and if there have been any conditions created which are obnoxious or objectionable to either employer or employee, the same are to be the subject of immediate investigation and correction by the representatives of the respective organization.

(NOTE—The “existing conditions” referred to in the foregoing paragraph are as follows:

Article IV: The standard minimum wage rate shall be subject to the following differentials:

1st. The young man who has completed his apprenticeship and who, by reason of his mechanical inferiority or lack of experience, or both, in either branch of the trade of molding shall be unfitted to receive the full wage rate provided for above, shall be free to make such arrangements as to wages with his employer for a period mutually satisfactory as may be agreeable to himself and employer.

2nd. The molder who, by reason of his physical incapacity or physical infirmity, can not earn the standard minimum wage rate is to be free to make such arrangements as to wages as may be mutually satisfactory to the employer and himself.

3rd. There being in some foundries a grade of work calling for less skill than is required by the ordinary molder, this grade of work being limited in quantity, it is agreed that nothing in this agreement shall be construed as prohibiting the foundrymen from employing a molder to make such work and paying for same at a rate that may be mutually agreed upon between the molder and foundrymen. It is understood that a molder who is working for and receiving a rate of wages of twenty-seven and one-half ( $27\frac{1}{2}$ ) cents per hour, or over, is not to be asked or expected to make the grade of work referred to above for any less wage rate than he is regularly entitled to under this agreement. This does not give the molder the right to refuse to make the work if it is offered to him at his regular wage rate.

Article V: It is agreed that nothing in the foregoing shall be construed as prohibiting piece or premium work, and when it is desired on the part of the foundryman that his work shall be done under the piece work or premium system it is agreed that the wages of the molder shall be based so that he may earn a wage not less than if working by the day. This is understood as applying to molders who are competent to do an equal amount of work and of equal quality to the average molder in the foundry in which he is employed. (<sup>a</sup>)

Where the foundryman and molder can not agree on the piece price for a certain piece of work the foundryman is to have the work done by the day for a period of a day or more—according to the nature of the work—in order to establish a fair and equitable wage rate on the work in question.

It is further agreed that nothing in this agreement shall be construed as preventing a molder from agreeing with his employer on a piece price as soon as he is given a pattern.

Article VI: Time and half time shall be paid for all overtime excepting in cases of accident or causes beyond control consuming not more than thirty (30) minutes; and double time for Sundays and legal holi-

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<sup>a</sup> At a meeting of Local Union No. 111, I. M. U. N. A., held on August 8, 1903, a resolution was unanimously adopted “that the limit which exists at the present time on the earning capacity of the piece-work molder be abolished.”



days, to wit: Fourth of July, Labor Day, Thanksgiving Day and Christmas. It being further understood that when foundries do not make a practice of running beyond bell or whistle time and are occasionally late, the "give and take" system shall apply in all such cases, it being understood that both sides should show a spirit of fairness in adjusting matters of this kind.

Article VII: Arbitrary limitations of output on the part of the molders, or arbitrary demands for an excessive amount of output by the molders on the part of the foundryman, being contrary to the spirit of equity which should govern the relationship of employer and employee, all attempts in that direction by either party—the molder or foundryman, are to be viewed with disfavor and will not receive the support of either of the respective associations parties to this agreement.

It being further agreed that the wage rates specified herein are to be paid for a fair and honest day's work on the part of the molder and that in the case of a molder feeling that a wrong has been done him by his employer, and that his treatment has been at variance with the terms of this agreement, he shall first endeavor to have the same corrected by a personal interview with his employer and, failing in this, that he shall report the same to the proper channel of his local union for its investigation. If there is any objectionable action on the part of the molder which is in conflict with this agreement or the spirit thereof, then the employer is to endeavor to point out to the molder where he is wrong, and failing in this, he may discharge the man for breach of discipline; or else retain him in his service and submit the case to the National Founders' Association for investigation.

In order that there may be no misunderstanding as to the wages a molder is to receive under the above agreement, it is understood that a molder must agree with the employer on the rate of wages that he is to receive at the time he is engaged; it being further agreed that neither the molder nor the foundryman is to deviate from the terms of this agreement as to wages or deportment.

Article VIII: It is agreed that all unfair or unjust shop practices on the part of the molders or foundrymen are to be viewed with disfavor by the Iron Molders' Union of North America and the National Founders' Association, and any attempt on the part of either party to this agreement to force any unfair or unjust practice upon the other is to be the subject of rigid investigation by the officers of the respective associations, and if upon careful investigation such charges are sustained against the party complained of, then said party is to be subject to discipline—according to the by-laws of the respective associations.

And it is further agreed that all disputes which can not be settled amicably between the employer and molder shall be submitted to arbitration under the "New York Agreement."

Article IX: When the words "employer" or "foundryman" are used, it is understood that their foreman or representatives may carry out the provisions of this agreement and act for them.

Article X: It is further agreed that nothing in the foregoing shall be construed as applying to operators of molding machines who have not learned the general trade of molding, and the right of a foundryman to introduce or operate molding machines in his foundry shall not be questioned.)



*Resolved*, That it is understood that any agreement reached by the two organizations of a national character, the same shall be made a part of this agreement.

This agreement shall expire June 3rd, 1905, and either party desiring a change at that time shall serve notice on the other thirty days in advance of the expiration of this agreement.

*Signed on behalf of the Philadelphia members of the National Founders' Association—*

(Sgd.) ANTONIO C. PESSANO.

*Signed on behalf of the Philadelphia members of the Iron Molders' Union of N. A.—*

(Sgd.) JOS. F. VALENTINE,  
1st Vice-President.

It is mutually understood and agreed that when the advance in wages is given to the day-work molders the same percentage of advance is to be given to the piece workers, it being understood that the advance in wages to the day-work molders as well as the piece-work molders is to be June 3rd, 1904.

It is also further understood and agreed that ten cents per day is to be paid to each molder and coremaker working by the day who have been employed in the foundries of the members of the National Founders' Association since June 3rd, 1903, up to and including August 8th, 1903.

*Signed on behalf of the Philadelphia members of the National Founders' Association—*

(Sgd.) ANTONIO C. PESSANO.

*Signed on behalf of the Philadelphia members of the Iron Molders' Union of N. A.—*

(Sgd.) JOS. F. VALENTINE,  
1st Vice-President.

## NEW YORK AGREEMENT BETWEEN NATIONAL FOUNDERS' ASSOCIATION AND IRON MOLDERS' UNION OF NORTH AMERICA, CONFERENCE 1899.

Whereas, the past experience of the members of the National Founders' Association and the Iron Molders' Union of North America, justifies them in the opinion that any arrangement entered into that will conduce to the greater harmony of their relations as employers and employees, will be to their mutual advantage; therefore, be it

*Resolved*, That this committee of conference endorse the principle of arbitration in the settlement of trade disputes, and recommend the same for adoption by the members of the National Founders' Association and the Iron Molders' Union of North America, on the following lines:

That in the event of a dispute arising between members of the respective organizations, a reasonable effort shall be made by the parties directly at interest to effect a satisfactory adjustment of the difficulty; failing to do which, either party shall have the right to ask its reference to a committee of arbitration which shall consist of the presidents of the National Founders' Association and the Iron Molders' Union of North America, or their representatives and two other representatives from each association appointed by the respective presidents.



The finding of this committee of arbitration, by a majority vote, shall be considered final in so far as the future action of the respective organizations is concerned.

Pending adjudication by the committee on arbitration there shall be no cessation of work at the instance of either party to the dispute.

The committee of arbitration shall meet within two weeks after reference of the dispute to them.

#### AGREEMENT BETWEEN BUFFALO FOUNDRYMEN'S ASSOCIATION AND IRON MOLDERS' CONFERENCE BOARD OF BUFFALO AND VICINITY.

This agreement entered into this first day of October, 1902, by and between the Buffalo Foundrymen's Association, hereinafter called the party of the first part, on behalf of the firms whose names are hereto appended, and the Iron Molders' Conference Board of Buffalo and vicinity, hereinafter called the party of the second part, on behalf of the molders employed by the firms before mentioned, witnesseth:

1st. Beginning October 1st, 1902, the wages of all journeymen molders shall be advanced fifteen cents per day on their present wage rate, and the minimum rate of wages for all molders in the employ of said foundrymen shall be \$2.80 per day.

2nd. No molder to be reduced who is receiving more.

3rd. That overtime shall be paid for at the rate of time and one-half time, with double time for Sundays and the following holidays: Fourth of July, Labor Day, Thanksgiving Day and Christmas.

4th. There shall be a shop committee, composed of three members of the Iron Molders' Union, agreeable to both parties hereto, in each foundry, which shall be recognized by the party of the first part as the representative in the foundry of the party of the second part, for the purpose of official communication or the carrying out of the terms of this agreement.

5th. The party of the second part agrees that the molders shall at all times work faithfully and devote their entire working hours to the best advantage of their employers; and that all shop practices which work an injustice to the foundryman shall, upon his complaint to the shop committee, be investigated, and if injustice be found as alleged, the objectionable practice shall be removed. Should the decision of the shop committee not give satisfaction to the foundryman, he shall have the right to appeal to the business agent of the party of the second part, who shall personally make an investigation and endeavor to reach a satisfactory adjustment. Should the dispute still remain unsettled, either party to this agreement shall have the privilege of asking for its reference to a conference committee composed of three representatives each of the parties hereto, which shall proceed to the shop and endeavor to adjust the difference. Should adjustment again fail, a disinterested party, that is, a party identified with neither interest of the parties hereto, but satisfactory to both parties, is to be called upon to decide, and his verdict shall be accepted as final by both parties.

6th. Should machines be introduced by any foundryman, it shall be the duty of the molders to facilitate, as far as possible, their successful operation. It is further agreed that after the machine has been given a fair and practical test by the foundryman, his foreman, or any



competent union molder whom the foundryman may select, the foundryman or his foreman, in conjunction with the shop committee, shall fix the day's work, if it be decided to operate the machine under the day-work system, or the piece price, if it be decided to operate the machine under the piecework system. If after a fair trial by the molder, either the foundryman or his foreman, or the molder desire a change in said day's work or price, it shall be made the subject of further negotiation between the foundryman or his foreman and the shop committee. Should these further negotiations fail to effect a satisfactory adjustment, either party shall have the right to ask the reference of the desired change to the decision of a conference committee, as provided in the fourth clause of this agreement.

7th. The above agreement to continue and be in force until October 1st, 1903, and unless notice of a desire to change any of the conditions of this agreement be given by either party hereto at least thirty days previous to October 1st, 1903, the same shall remain in force until October 1st next following, and so on from year to year thereafter.

In agreement herewith we subscribe ourselves:

*On behalf of the Buffalo Foundrymen's Association—*

*On behalf of the Iron Molder's Conference Board of  
Buffalo and Vicinity—*

## NEW HAVEN AGREEMENT BETWEEN NATIONAL FOUNDERS' ASSOCIATION AND IRON MOLDERS' UNION OF NORTH AMERICA.

This agreement, made this 22nd day of January, 1903, between the National Founders' Association and the Iron Molders' Union of North America.

Witnesseth: That with a view of equalizing the average wages earned by the journeyman molders in the foundries of the members of the National Founders' Association making locks and hardware in Connecticut, and with a further view of endeavoring to harmonize the apparent variations in existing conditions, it is hereby agreed that commencing with February 1st, 1903, the following conditions shall prevail:

1st. The average wages earned by the journeyman molders working piecework in the foundries of the members of the National Founders' Association in Connecticut making locks and hardware shall not be less than \$2.75 per day, and the average molders shall not receive less than \$2.50 per day.

2nd. There shall be no limitation of output on the part of the molders employed in any of the foundries in which this agreement shall apply.

3rd. When a piece price has been established for any job it shall not be reduced during the life of this agreement, except that should a member introduce improved methods or facilities for molding, thereby increasing the output, which would warrant a readjustment, he shall be entitled to establish a new rate on the job, the same to permit the average earnings of the machine operator to be in conformity with clause one of this agreement.



4th. It is understood that during the life of this agreement there shall be no further attempt made by either party to introduce any conditions not herein provided for.

5th. This agreement to go into effect February 1st, 1903, and be and continue in force until February 1st, 1904, and should either party to this agreement desire any change or modifications of its terms, they shall notify the other party of the change or modifications desired at least 30 days prior to February 1st, 1904, and should no such notification be given to either party then this agreement shall continue in force for another year, and so on from year to year.

## AGREEMENT BETWEEN THE FOUNDRYMEN OF DENVER AND IRON MOLDERS' UNION NO. 188.

This agreement, made and entered into between the Foundrymen of Denver, as herein represented, and Iron Molders' Union No. 188, as follows:

1st. That the Foundrymen of Denver, as herein represented, agree to grant to the members of Iron Molders' Union No. 188, the nine-hour day with the present ten-hour minimum, subject to the following agreements:

2nd. That all disagreements arising between the members of Iron Molders' Union No. 188 and their employers, will be referred to a committee consisting of three members each from the Foundrymen herein represented and Iron Molders' Union No. 188, whose duty it shall be in joint convention to settle all such disagreements, and in case they can not come to an understanding, they shall refer the matter to the National Committee of Iron Molders' Union and the National Founders' Association.

3rd. That the members of Iron Molders' Union No. 188 will make an honest endeavor to accomplish the same amount of work in nine hours as in ten hours. By honest endeavor is meant wherever it is not a physical impossibility. That the members will at all time cooperate with the employers to accomplish the best results in the foundry. That there will be no interference with any workman on the part of the shop committee, having in view the restriction of daily output.

4th. That Iron Molders' Union No. 188 will not allow its members to work in any shop not recognizing the jurisdiction.

5th. This agreement shall become operative within two days after receiving the approval of the National Headquarters of the representatives of Iron Molders' Union No. 188 and the National Founders' Association, and shall terminate on the first day of January, A. D., 1904.

6th. Upon violation of this agreement upon the part of members of Iron Molders' Union No. 188, or the foundries herein represented, this agreement shall become null and void.

DATED at Denver, Colorado, this ninth day of April, A. D. 1903.



AGREEMENT BETWEEN TWIN CITY FOUNDRYMEN'S ASSOCIATION OF ST. PAUL AND MINNEAPOLIS, MINN., AND IRON MOLDERS' UNION NOS. 176 AND 232.

MINNEAPOLIS, MINNESOTA, *May 28, 1903.*

We, the undersigned committees, representing the Twin City Foundrymen's Association, whose names are signed below, and Iron Molders' Union Nos. 176 and 232, believing that labor disputes and strikes and lockouts are disturbing factors in the foundry industry, and that they should be as far as possible eliminated, and that the question of labor is one of the most fruitful sources of such strikes or lockouts, do hereby agree on behalf of our respective firms and unions to be governed in determining the wages to be paid to molders, and in operating our foundries in the future, by the provisions of the following agreement:

1st. The distribution of hours shall be nine (9) hours per day for every working day.

2nd. The minimum rate of wages shall be two dollars and eighty-eight cents (\$2.88) per day for molders, and all molders now receiving more than \$2.88 per day shall have their rates readjusted so that they will receive as much for fifty-four hours work as they now receive for fifty-six hours, and when piece work is practiced, the molders shall be paid a rate that shall enable them to earn at least this minimum rate.

3rd. Pay days shall remain the same as at the present time.

4th. Any foundry that works overtime shall pay to its molders, time and one-half for such overtime from the regular quitting time until midnight, and double time thereafter, including Sundays, July 4th, Labor Day, Thanksgiving and Christmas. In case, however, overtime shall be caused by accident or causes beyond control, the overtime rate shall not begin until fifteen minutes after the regular quitting time.

5th. Machine molding as at present carried on shall not be disturbed during the life of this agreement.

This shall not deprive shops, which are not using machines at the present time, of putting in machines and using them under the conditions prevailing in the other foundries of the Twin Cities.

6th. The molders waive all rights of molding card sash weights, and employers shall be free to employ such men as they elect on washers, sleigh shoes and grate bars, providing molders refuse to perform said work or if molders can not be secured within one week after the shop committee has been notified.

7th. In all cases of dispute or grievance, the difficulty shall first be taken up with the foreman or proprietor of the shop in which the grievance arises, failing of a satisfactory settlement with the foreman or proprietor, the shop committee shall take up the matter promptly with the union. The union shall immediately thereafter appoint a committee, who shall investigate the grievance promptly and use all reasonable efforts to make a mutually satisfactory settlement, the molders shall remain at work and the proprietor shall not discharge them or lay them off.

8th. It is agreed that restriction of output shall not be countenanced in any way.

This agreement shall take effect June 1st, 1903, and remain in full force until May 1st, 1904. If either parties desire the abrogation of this contract, it shall give notice of the same, thirty (30) days prior to



the expiration thereof, otherwise it shall remain in full force for one year from the date of expiration thereof as herein provided.

It is understood that there are no agreements or understandings excepting as set forth in this instrument.

The above parties hereto pledge their best efforts to carry out this agreement in good faith.

Executed in behalf of the Twin City Foundrymen's Association and Iron Molders' Union Nos. 176 and 232 by their duly authorized representatives on this 28th day of May, A. D. 1903.

TWIN CITY FOUNDRYMEN'S ASSOCIATION.  
IRON MOLDERS' UNION NOS. 176 AND 232.

## AGREEMENT BETWEEN MANUFACTURERS' ASSOCIATION AND NATIONAL FOUNDERS' ASSOCIATION OF PITTS- BURG AND IRON MOLDERS' UNION OF NORTH AMERICA.

This agreement, made and entered into this thirtieth (30th) day of July, 1903, by and between a committee representing The Manufacturers' Association of Pittsburg and the members of the National Founders' Association of Pittsburg and vicinity, constituting the party of the first part, and a committee representing the members of the Iron Molders' Union of North America, in the Pittsburg district, party of the second part, for the purpose of securing and preserving just and equitable conditions of labor in the workshops of the first party, whereby the interests of the employer and employee shall be properly protected; and for the further purpose of avoiding strikes and lockouts by settling all disputes that may hereafter arise between the members of the parties hereto, during the term of this contract, in an amicable and equitable manner.

1st. That any disputes or difficulties arising between the parties hereto during the term of this agreement, shall be settled strictly in accordance with the New York agreement.

2nd. That nine (9) hours shall constitute a day's work. All time worked over nine (9) hours in any one day shall be considered overtime.

3rd. Time-and-half time shall be paid for all overtime, and double time shall be paid for Sundays, Fourth of July, Labor Day, Thanksgiving Day and Christmas.

4th. There shall be no restrictions or fines placed on a molder for the purpose of preventing him in any way from putting forth his best efforts to produce the best quality and quantity of work and receiving compensation accordingly.

5th. The party of the first part shall have the privilege of introducing molding machines and improved appliances of any kind in their foundries, and the right to have same operated by parties of the second part or any other parties they may find best adapted to operate said machines.

6th. That the party of the first part will refuse to employ any apprentice who has started his trade with another firm and has not completed his regular apprenticeship, unless said apprentice receives the consent of the firm he started his apprenticeship with. It is also agreed that apprentices shall be given work in all branches of the molding trade.

7th. The minimum rate of wages per day of nine (9) hours, during the term of this contract, shall be \$3 per day for journeymen molders



and coremakers working in machinery shops. It is understood, however, that this is not to affect coremakers who are at present working for less than \$3 per day, or establish any precedent in the ratio of wages between molders and coremakers and if at a national conference between the National Founders' Association and the Iron Molders' Union of North America, the minimum rate of coremakers should be fixed at a rate less than \$3 per day, the rate for all coremakers working under this contract shall be changed to that rate.

8th. An advance of 10 cents per day shall be paid to each journeyman molder and coremaker, beginning July 1st.

9th. It is further understood that any national agreement that may be perfected between the National Founders' Association and the Iron Molders' Union of North America, during the life of this agreement, shall go into effect at once, as between the members of these two associations, and that nothing in this agreement shall be understood as conflicting with any said national agreement.

10th. This agreement shall remain in force from July 1st, 1903, to July 1st, 1904, and thereafter, unless thirty (30) days' notice shall be given in writing, by either party, that they wish to terminate this agreement.

(Signed):

JOHN BARNETT,  
THOS. F. CONNOLLY,  
*For committee representing The Iron Molders' Union  
of North America in Pittsburg and vicinity.*

GEO. MESTA,  
ISAAC W. FRANK,  
*For committee representing The Manufacturers' Association  
of Pittsburg and the members of the  
National Founders' Association of Pittsburg and  
vicinity.*

## PROPOSED STANDARD FORM OF AGREEMENT FOR JOBGING AND MACHINERY FOUNDRIES.

Agreement between the National Founders' Association (on behalf of its ----- members) and the Iron Molders' Union of North America, (on behalf of its members belonging to Local Union No. ....)

1st. That in the event of a dispute arising upon the number of apprentices employed by a member of the National Founders' Association it shall be the duty of the officers of the two associations, or the general conference when assembled to adjust such dispute in an equitable manner, based upon the conditions prevailing at the time in the shop in which the dispute may arise.

2nd. There shall be no set day's work on the part of the molder or foundrymen.

3rd. There shall be no limitation of output on the part of the molder.

4th. There shall be no limit to a man's earning capacity, whether he is working by the day, by the piece or premium system.

5th. There are to be no fines or restrictions placed on a molder for the purpose of handicapping him or retarding him in any way from putting forth his best efforts to produce the best quality and quantity of work in the shortest time.



6th. The right of a foundryman to introduce molding machines, or improved appliances of any kind into his foundry shall not be questioned and it is to be optional with the foundryman as to whom he employs thereon, due consideration and preference being given to those who will produce the work for the least cost price.

7th. When castings are made under any other than the day-work system, the prices are to be so set, as to enable a molder to earn at least the rate of wages in the foundry in which he is working, except as provided in clause eleven of this agreement, and when a piece price is established, such piece price shall not be reduced excepting by improved facilities or agreement.

8th. All overtime to be paid for at the rate of time and one-half time and double time for Sundays and legal holidays. In case of delays due to accident causing a delay of one hour or less, or when a foundry is only occasionally late with its heats, the give and take principle is to apply and no allowance to be made for such time.

9th. There shall be no sympathetic strike or sympathetic lockout on the part of the molders or foundrymen.

10th. There shall be no strike or lockout in any of the foundries of the members of the National Founders' Association, wherein are employed members of the Iron Molders' Union of North America, without the consent in writing of the presidents of their respective organizations, no matter what the cause may be or the alleged provocation, on either side, the question in dispute must be submitted through the regular channels for adjustment and decision; pending this decision neither side shall take any arbitrary action. Should there be any breach of this rule and its provision or the spirit of the same violated, and result in a cessation of work by the members of the I. M. U. of N. A. in a body, or should there be a lockout ordered by the member of the N. F. A., then the members of the I. M. U. of N. A. so offending are to be expelled from membership, likewise the member of the N. F. A. so offending is to be expelled from the association.

11th. Basic wage rate, subject to differentials. The basic wage rate shall be based upon local conditions and be subject to the following differential: 40 per cent of the total number of bench and floor molders who have served a regular apprenticeship of four years at the trade of molding, may be employed at a differential of 10 per cent less than the basic wage rate, established for the foundry or foundries in the locality for which this agreement is made.

12th. During the life of this agreement there shall be no further attempt made by either party to introduce any conditions not herein provided for, unless by mutual consent. Furthermore it is understood that there are no other agreements or understandings between the parties to this agreement except such as are herein recorded.

13th. Expiration of agreements, between the N. F. A. and the I. M. U. of N. A. All agreements entered into locally or nationally between the members of the two associations shall be made to expire as of the same date—said date to be the first Saturday in June of each year.

*On behalf of the National Founders' Ass'n.*

*On behalf of the Iron Molders' Union.*



# WAGE RATES AND HOURS IN FOUNDRIES.

The following table, showing by cities the minimum wage rates of molders and hours of labor in jobbing and machinery foundries in the United States and Canada, was published by the National Founders' Association in connection with recent agreements, the more important of which are reproduced in this Bulletin:

## MINIMUM WAGE RATES OF MOLDERS AND HOURS OF LABOR IN JOBBING AND MACHINERY FOUNDRIES.

[Figures published by National Founders' Association.]

City.	Molders' minimum wages.			City.	Molders' minimum wages.		
	Floor.	Bench.	Hours of labor.		Floor.	Bench.	Hours of labor.
Akron, Ohio.....	\$2.90	\$2.90	10	Newark, N. J.....	\$2.90	\$2.65	9
Albany, N. Y.....	3.00	3.00	9	Newcastle, Pa.....	3.00	3.00	9
Alliance, Ohio.....	2.75	2.75	9	New Haven, Conn.....	2.75	2.75	10
Anaconda, Mont.....	4.00	4.00	9	New London, Conn.....	2.75	2.75	9
Ansonia, Conn.....	2.75	2.50	9	New Orleans, La.....	3.00	3.00	9
Auburn, N. Y.....	2.65	2.65	9	New York, N. Y.....	3.00	2.75	9
Baltimore, Md.....	2.75	2.75	9	Omaha, Nebr.....	3.05	.....	9½
Battle Creek, Mich.....	2.75	2.75	10	Omaha, Nebr.....	.....	2.88	9
Barberton, Ohio.....	2.90	2.90	10	Paterson, N. J.....	2.90	2.70	10
Bay City, Mich.....	2.75	2.75	9	Peoria, Ill.....	3.00	3.00	10
Beaumont, Tex.....	3.50	3.50	9	Peekskill, N. Y.....	3.00	2.75	10
Beloit, Wis.....	2.90	2.75	10	Philadelphia, Pa.....	2.90	2.90	9
Bessemer, Ala.....	3.00	3.00	9	Pittsburg, Pa.....	3.00	3.00	9
Birmingham, Conn.....	2.75	2.50	9	Plainfield, N. J.....	2.75	2.75	9
Birmingham, Ala.....	3.00	3.00	10	Portland, Oreg.....	3.50	3.50	9
Boston, Mass.....	2.75	2.75	9	Poughkeepsie, N. Y.....	3.00	2.75	9
Bridgeport, Conn.....	2.75	2.50	9	Providence, R. I.....	2.75	2.75	10
Brooklyn, N. Y.....	3.00	2.75	9	Quincy, Ill.....	2.75	2.75	9
Buffalo, N. Y.....	2.80	2.80	10	Racine, Wis.....	2.85	2.65	10
Butte, Mont.....	4.00	4.00	9	Richmond, Ind.....	2.65	2.65	10
Camden, N. J.....	2.75	2.75	10	Rochester, N. Y.....	2.75	2.75	9
Chester, Pa.....	3.00	3.00	10	San Antonio, Tex.....	3.00	3.00	9
Chicago, Ill.....	3.00	3.00	9	San Francisco, Cal.....	3.25	3.25	9
Cincinnati, Ohio.....	3.20	3.00	10	Saginaw, Mich.....	2.75	2.75	9
Cleveland, Ohio.....	3.00	3.00	10	Salem, Mass.....	2.75	2.75	9
Cold Spring, N. Y.....	3.00	2.75	10	Salem, Ohio.....	2.75	2.75	9
Colorado Springs, Colo....	3.50	3.50	9	Seranton, Pa.....	2.75	2.75	10
Columbus, Ohio.....	2.85	2.85	10	Seattle, Wash.....	3.50	3.50	9
Dallas, Tex.....	3.00	3.00	9	Seneca Falls, N. Y.....	2.60	2.60	10
Dayton, Ohio.....	2.90	2.65	10	Sing Sing, N. Y.....	2.75	2.75	9
Denver, Colo.....	3.50	3.50	9	Springfield, Mass.....	2.75	2.75	9½
Derby, Conn.....	2.75	2.50	9	Springfield, Mo.....	3.00	3.00	9
Detroit, Mich.....	3.00	2.80	10	Springfield, Ill.....	2.90	2.90	10
Elizabeth, N. J.....	3.00	3.00	9	Springfield, Ohio.....	2.90	2.65	10
Erie, Pa.....	2.80	2.80	10	St. Joseph, Mo.....	2.85	2.85	9
Eureka, Cal.....	3.50	3.50	9	St. Louis, Mo.....	3.00	2.90	9
Fort Worth, Tex.....	3.25	3.25	9	St. Paul, Minn.....	2.88	2.88	9
Halifax, N. S.....	2.25	2.25	9	Syracuse, N. Y.....	2.70	2.70	9
Hamilton, Ont.....	2.65	2.65	10	Tacoma, Wash.....	3.50	3.50	9
Hancock, Mich.....	3.10	3.10	9	Toledo, Ohio.....	2.75	2.75	10
Hartford, Conn.....	2.75	2.75	9	Toronto, Ont.....	2.75	2.75	9
Holyoke, Mass.....	2.75	2.75	10	Toronto, Ont.....	2.75	2.75	10
Houston, Tex.....	3.30	3.30	9	Trenton, N. J.....	2.75	2.75	9
Indianapolis, Ind.....	3.00	2.80	10	Troy, N. Y.....	3.00	3.00	9
Jackson, Mich.....	2.75	2.75	10	Utica, N. Y.....	2.75	2.75	9
Jersey City, N. J.....	3.00	2.75	9	Vancouver, B. C.....	3.50	3.50	9
Lynn, Mass.....	2.75	2.75	9	Victoria, B. C.....	3.50	3.50	9
Long Island City, N. Y....	3.00	2.75	9	Washington, D. C.....	2.75	2.75	9
Memphis, Tenn.....	3.25	3.25	9	Waterbury, Conn.....	2.75	2.75	9
Los Angeles, Cal.....	3.37½	3.37½	9	West Superior, Wis.....	2.88	2.88	9
Mount Vernon, Ohio.....	2.85	2.85	10	Wilmington, Del.....	2.47½	2.47½	9
Milwaukee, Wis.....	3.00	2.80	10	Windsor Locks, Conn....	2.75	2.75	9
Minneapolis, Minn.....	2.88	2.88	9	Warren, Ohio.....	2.90	2.90	9
Moline, Ill.....	2.75	2.75	10	Worcester, Mass.....	3.00	3.00	10
Montreal, Quebec.....	2.55	2.55	10	Youngstown, Ohio.....	3.00	3.00	9
Newburg, N. Y.....	3.00	2.75	10				



RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

RHODE ISLAND

*Sixteenth Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January session, 1903.* Henry E. Tiepke, Commissioner. viii, 535 pp.

The following are the subjects presented in this report: Statistics of textile manufactures, 78 pages; official valuations of property, 33 pages; imports and exports of merchandise, 13 pages; strikes, lock-outs, and shut downs, 64 pages; banking institutions, 38 pages; free public employment offices, 23 pages; decisions of courts affecting labor, 235 pages; labor laws, 32 pages; textile school, 5 pages.

TEXTILE MANUFACTURES.—Comparative statistics are given for the years 1900 and 1901 for 188 identical establishments, of which 90 were engaged in the manufacture of cotton goods, 13 in the manufacture of hosiery and knit goods, 17 were bleacheries and dye and print works, 4 were in the manufacture of silk goods, and 64 in the manufacture of woolen goods. The table following summarizes the statistics:

STATISTICS OF 188 TEXTILE MANUFACTURING ESTABLISHMENTS, 1900 AND 1901.

Items.	1900.	1901.	Increase.	
			Amount.	Per cent.
Single proprietors .....	34	33	a1	a2.94
Firms .....	29	25	a4	a13.79
Corporations .....	125	130	5	4.00
Partners in firms .....	71	66	a5	a7.04
Stockholders in corporations.....	3,816	3,882	66	1.73
Aggregate wages paid.....	\$17,998,136	\$18,707,183	\$709,047	3.94
Average days in operation .....	292.45	289.88	a2.57	a.88
Employees:				
Average number .....	47,600	48,604	1,004	2.11
Greatest number .....	51,504	53,317	1,813	3.52
Smallest number .....	41,426	44,428	3,002	7.25
Average yearly earnings .....	\$378.11	\$384.89	\$6.78	1.79

a Decrease.

For 1901 alone statistics are given for 200 establishments, of which 96 were engaged in the manufacture of cotton goods, 14 in the manufacture of hosiery and knit goods, 22 were bleacheries and dye and print works, 4 were in the manufacture of silk goods, and 64 in the manufacture of woolen goods. A summary of the statistics of the 200 establishments follows:

Single proprietors .....	34
Firms .....	27
Corporations .....	139
Partners in firms .....	74
Stockholders in corporations .....	3,965
Aggregate wages paid.....	\$19,679,723

## Employees

Average number .....	51,346
Greatest number .....	56,205
Smallest number .....	46,982
Average yearly earnings .....	\$383.28

The following statement shows, for selected occupations, the average weekly wages paid during 1901 in the textile industries of the State:

AVERAGE WEEKLY WAGES IN SELECTED OCCUPATIONS IN TEXTILE INDUSTRIES, 1901.

Industry.	Black-smiths.	Machin-ists.	Loom fixers.	Frame spinners.	Mule spinners.	Weavers.
Cotton goods .....	\$12.35	\$12.95	\$11.73	\$5.22	\$10.78	\$8.34
Hosiery and knit goods .....	18.00	15.50	15.00	6.00	8.62	13.00
Bleacheries and dye and print works...	13.88	14.43	.....	.....	.....	.....
Silk goods .....	.....	13.50	11.75	.....	10.50	9.67
Woolen goods .....	14.20	14.38	14.49	6.08	9.83	12.30

**STRIKES, LOCKOUTS, AND SHUT DOWNS.**—This is a chronological record of the various labor troubles occurring within the State during 1902, derived chiefly from reports given in the newspapers. No statistics are presented which can be summarized.

**FREE PUBLIC EMPLOYMENT OFFICES.**—Under this title are presented statistics of these employment agencies as now maintained by the States of Illinois, Ohio, and Connecticut. There is a demand that similar offices be established in the industrial centers of Rhode Island.

**DECISIONS OF COURTS AFFECTING LABOR.**—In this part of the report are reproduced the decisions published in the Bulletin of the United States Bureau of Labor during the year 1902.

**LABOR LAWS.**—A reprint of the labor laws of the State constitutes this section of the report.

**TEXTILE SCHOOL.**—Under this caption is presented the report of a joint special committee appointed in 1902 to inquire into the establishment of a school for textile industries. Doubting the wisdom of incurring at present the expense of establishing a separate school, and thus perhaps duplicating educational apparatus, the committee recommends that an increased annual appropriation be made to the Rhode Island School of Design, upon its furnishing adequate opportunities for instruction, both to students and operatives, in textile designing and textile work.

## VIRGINIA.

*Fifth Annual Report of the Bureau of Labor and Industrial Statistics for the State of Virginia.* 1902. James B. Doherty, Commissioner. 205 pp.

The subjects presented in this report may be grouped under the following heads: Manufacturing industries, 87 pages; railroad employees, 10 pages; waterworks and gas works, 12 pages; mine products, 7 pages; decisions of courts affecting labor, 32 pages; labor laws, 41 pages; trade unions, 13 pages.

**MANUFACTURING INDUSTRIES.**—Returns were secured from 14 indus-



tries of the State, giving, for each establishment reporting, capital invested, value of product, amount paid in wages, number of days worked, and number, daily wages, and hours of labor of each class of employees; also reports as to changes in wages. The table following summarizes the principal data.

STATISTICS OF MANUFACTURES, 1901.

Industries.	Estab-lish-ments.	Capital invested.	Value of product.	Wages paid.	Wage-earners.
Artificial ice.....	14	\$387,364	\$154,068	\$38,494	146
Boxes and baskets.....	16	544,992	1,690,152	348,639	1,476
Breweries.....	5	914,169	811,539	119,420	225
Cigars, cigarettes, and cheroots.....	39	621,324	5,631,400	652,699	1,801
Cotton mills.....	7	3,419,000	2,447,407	573,454	3,024
Fish oil and fish guano.....	8	333,469	587,620	133,251	606
Flour mills.....	48	1,106,899	3,465,223	96,907	325
Iron and machine works.....	31	4,850,627	16,128,727	4,716,942	9,122
Knitting mills.....	12	459,272	1,326,967	346,125	1,590
Paper and pulp.....	6	508,923	607,202	74,035	237
Printing and engraving.....	42	612,796	921,691	305,899	573
Shirts and underwear.....	6	44,500	118,100	32,250	147
Tobacco factories.....	30	2,479,202	6,069,069	744,806	3,481
Woolen mills.....	7	490,679	477,156	79,348	319

In a majority of the cigar and tobacco factories eight to ten hours constituted a day's work, in iron and machine works nine to ten hours, and in cotton and woolen mills ten to eleven hours. A large proportion of all establishments canvassed reported full time worked during the year and trade conditions good, while a considerable number reported an increase in wages.

RAILROAD EMPLOYEES.—Tables are given showing, by occupations, the number of persons employed by the railroads of the State during the year 1901, together with the number of days worked and the total yearly and the average daily wages paid each class of employees. Accidents to employees, by causes, are also presented for the year.

The table following shows, by occupations, the number employed and the average daily wages for the years 1899 and 1901, and the total amount paid in wages during 1901:

NUMBER AND WAGES OF RAILROAD EMPLOYEES.

Occupations.	Number of employees.		Average daily wages.		Total wages, 1901.
	1899.	1901.	1899.	1901.	
General office clerks.....	737	1,149	\$2.07	\$1.91	\$636,696.38
Station agents.....	881	1,065	1.31	1.45	535,918.18
Other station men.....	2,390	2,220	1.11	1.34	913,298.33
Enginemen.....	2,327	1,247	3.33	3.84	1,438,016.19
Firemen.....	947	1,438	1.50	1.74	648,834.89
Conductors.....	651	871	2.66	3.03	784,562.75
Other trainmen.....	1,699	2,113	1.37	1.50	889,481.76
Machinists.....	637	905	2.22	2.15	581,521.66
Carpenters.....	1,474	1,848	1.79	1.68	934,624.70
Other shopmen.....	3,183	3,421	1.55	1.58	1,582,916.73
Section foremen.....	665	953	1.42	1.41	466,123.31
Other trackmen.....	4,679	7,449	.94	.96	1,710,200.62
Switchmen, flagmen, and watchmen.....	996	1,144	1.10	1.31	462,965.22
Telegraph operators and dispatchers.....	890	1,021	1.72	1.60	543,315.44
Employees, floating equipment.....	317	356	1.38	1.46	173,304.67
Other employees and laborers.....	2,251	4,006	1.23	1.33	1,573,576.09
Total.....	24,634	31,206	1.56	1.52	13,875,356.92

<sup>a</sup>The sum of the items does not agree with this total; the figures, however, are reproduced as they appear in the original.



Accidents to employees from moving trains, locomotives, or cars resulted in 57 being killed and 538 being injured, and accidents from causes other than moving trains, etc., resulted in 2 being killed and 876 being injured.

**MINE PRODUCTS.**—During 1901 the State produced 2,725,873 short tons of coal of a total spot value of \$2,353,989. There was an average of 4,152 persons employed for 279 working days. During the same year 907,130 short tons of coke were produced at a total value at ovens of \$1,483,670. In 1900 the granite production of the State amounted to \$211,080, slate to \$190,211, gypsum to \$18,111, limestone to \$403,318, talc and soapstone to \$116,930, clay products (brick, tile, and pottery) to \$1,305,195, manganese ores to \$69,924, and iron ores (Virginia and West Virginia combined) to \$1,489,318.

**COURT DECISIONS AND LABOR LAWS.**—In this part of the report are reproduced from the Bulletins of the United States Bureau of Labor decisions of courts affecting labor, and laws of various States relating to labor enacted during 1901.

**TRADE UNIONS.**—Reports were received from 116 organizations, representing a membership of 10,062. During 1901 the amount paid out for assistance by 111 organizations aggregated \$18,803.19. Wages and hours of labor of members of unions, and opinions on questions relating to labor are also given. The following table gives the trades unionized, with the number of organizations and members reported for each:

LABOR ORGANIZATIONS, 1901.

Occupations.	Organiza- tions.	Members.	Occupations.	Organiza- tions.	Members.
Bakers and confectioners .....	2	113	Painters, and decorators .....	4	203
Barbers .....	1	14	Pattern makers .....	1	17
Blacksmiths .....	3	64	Plumbers and gas fitters .....	2	102
Boilermakers .....	5	177	Pressmen .....	1	34
Boilermakers' helpers .....	1	54	Railroad clerks .....	1	47
Bookbinders .....	1	24	Railroad conductors .....	5	273
Brewery workmen .....	3	162	Railroad trainmen .....	2	154
Bricklayers .....	6	284	Retail clerks .....	3	124
Carpenters and joiners .....	10	736	Seamen .....	1	2,400
Cigar makers .....	4	152	Sheet-metal workers .....	4	152
Electrical workers .....	3	227	Slate and tile roofers .....	1	9
Garment workers .....	2	162	Stove mounters .....	1	16
Glass bottle blowers .....	2	62	Street-railway employees .....	2	576
Granite cutters .....	2	76	Tailors .....	5	141
Locomotive engineers .....	9	442	Telegraphers .....	1	180
Locomotive firemen .....	8	356	Tobacco workers .....	4	1,226
Machinists .....	6	672	Typographers .....	5	329
Molders .....	3	209			
Musicians .....	2	93	Total .....	116	10,062



## RECENT FOREIGN STATISTICAL PUBLICATIONS.

### FRANCE.

*Apprentissage. Enquête et Documents.* Conseil Supérieur du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. Session de 1902. xlvihi, 489 pp.

The present volume contains the report and recommendations of the permanent commission of the superior council of labor on the subject of apprenticeship. The report is based upon an investigation covering portions of the years 1901 and 1902, and consists mainly of documents submitted by the commission, the most important of which are: Text of the law of February 22, 1851, concerning apprenticeship contracts and an account of the efforts made since 1848 to secure this legislation; apprenticeship laws of various foreign countries; specimens of regulations and forms of apprenticeship contracts in use in France, Denmark, and Switzerland; evidence given before the labor councils of Paris relative to the present investigation, and discussion thereon; and a general résumé and a résumé by trades of the answers to the questions sent out by the commission.

Two sets of questions were sent to the councils of prud'hommes, chambers of commerce, employers' associations, mixed associations of employers and employees, workingmen's unions, cooperative productive societies, etc. One set, hereafter referred to as schedule 1, was made to apply to all the trades and industries of a region. Its object was to ascertain in general the present condition of apprenticeship, the complement of trade instruction deemed necessary by the parties filling out the schedule, the difficulties arising in the execution of apprenticeship contracts under the present law, the reforms that should be introduced into the law because of changed industrial conditions, etc. Schedule 2 was made to apply only to those trades in which apprenticeship is regulated by contract, either written or oral. Fifty-six hundred copies of schedule 1 and 10,000 of schedule 2 were distributed, of which 557 and 1,364, respectively, were filled out and returned to the commission. Of the latter, only 1,283 were sufficiently complete to be used. The main facts brought out in these replies are summarized as follows:

In response to the inquiry in schedule 1 concerning the present condition of the apprenticeship system, the returns show that in 110 out of 219 trades the apprenticeship system is still in general use; in 92



trades it is customary in some sections and not in others, and in 17 trades it has entirely disappeared. In those occupations in which apprenticeship no longer exists workmen are recruited mostly from the helpers. The opinion is general that lack of properly trained workers has led to the decadence of certain industries, and that the disappearance of apprenticeship has caused a lowering of wages and has increased enforced idleness.

In response to an inquiry on schedule 2, one-fifth of the chambers of commerce, 36 per cent of the employers' associations, and nearly three-fourths of the workmen's unions and cooperative productive societies reported that usually the apprentice was not employed on useful work and was not given a complete instruction in the trade. In two-thirds of the No. 1 schedules returned the opinion was expressed that there is a retrogression in the trade instruction of workmen.

The 1,283 returns of schedule 2 were made for trades in which apprentices are still employed, at least in some parts of France. These returns apply to 150 trades. In 23 schedules the period of apprenticeship shown was from 10 days to 6 months; in 105, from 1 to 2 years; in 504, from 2 to 3 years; in 558, from 3 to 4 years; in 45, from 4 to 5 years, and in 22 it was 5 years. In the remaining 26 schedules the time was not specified. In nine-tenths of these schedules the contract of apprenticeship is stated to be purely verbal. The ratio of apprentices to workmen was stated in 1,050 schedules. In 537 schedules it was placed at 1 apprentice to at least 10 workmen; in 284, at 2 to 10; in 114, at 3 to 10; in 88, at 4 or 5 to 10; and in 27, at from 6 to 12 apprentices to 10 workmen. In response to an inquiry whether the certificate of apprenticeship required by law to be given to apprentices is regarded by employers as a proof of capacity, 288 schedules show an affirmative and 745 a negative reply. In 193 returns it was stated that the certificate is not demanded or is not in use, while in 57 returns the question was not answered.

These, in brief, are the general facts in regard to the present situation of apprenticeship as brought out by the investigation.

The commission believes that the present apprenticeship law (<sup>a</sup>) is defective and incomplete in several important respects and that under its operation the professional standard of French workmen is declining. This view is sustained by two-thirds of the trade and economic institutions that expressed an opinion on this point. The commission presents an analysis of provisions in the laws of certain foreign countries having reference to the practical control and supervision of the trade instruction of the apprentice, the deposition or registration of the apprenticeship contract, the attendance on trade schools and trade courses (which is obligatory in some countries), the supervision of

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<sup>a</sup> For an analysis of this law see Bulletin of the Department of Labor, No. 25, pp. 339—842.



apprenticeship by competent persons, the examination of apprentices and the granting of a certificate or diploma, the requirement of a written contract, etc. In all these points the commission recognizes the inferiority of the French law, considering it especially defective in permitting verbal contracts, for in practice only those apprentices who have written contracts (about one-tenth of the total number) are really protected by the law. In fact, more than one-half of each class of institutions and more than four-fifths of all institutions reporting declare that as a means of improving apprenticeship the law should require contracts to be written.

Other measures for the improvement of apprenticeship were proposed in the schedules. The opinion was general that in future apprentices should be prepared in the trade schools or their practical training should be supplemented by attendance on the complementary trade courses. Three-fourths of the institutions answering the questions as to trade schools, etc., advocated obligatory attendance on the complementary courses, the time required to be deducted from the legal workday. Employers' associations, however, were divided on this question, and chambers of commerce were as a rule opposed to making such attendance obligatory. To enhance the value of the certificate to which the apprentice is entitled at the expiration of his contract it was suggested that he be required to pass an examination before the council of prud'hommes or a mixed commission, the examining body to deliver a certificate in case of success. Nearly one-half of the institutions reporting were in favor of fixing by law the maximum period of apprenticeship and four-fifths of them were opposed to limiting the number of apprentices. A certain number of workingmen's unions, productive societies, councils of prud'hommes, and employers' associations declared that some sort of supervision of apprenticeship is necessary.

It is stated that there is a decline in the trade instruction of French workmen, a fact long recognized in some quarters, and efforts have been made to offset its effects by the establishment of trade schools, trade courses, etc. A large number of these schools and courses are now maintained by individuals, employers' associations, trade unions, and other organizations, in addition to those maintained by the State and local governments.

The recommendations of the commission are not very radical in view of the facts brought out by the investigation. Taking the present law as a basis, it is proposed to modify certain of its articles in accordance with the following general propositions:

1. While the law should, as at present, grant full liberty to enter into a contract of apprenticeship or not as the parties see fit, the contract when made should be written.



2. The supervision of apprenticeship should be provided for by law. Such supervision should be confided to local commissions composed equally of employers and workingmen, or, in the event of their failing to act, to the councils of prud'hommes.

3. An examination in the theory and practice of the trades should be instituted and a certificate of trade instruction given to successful candidates, the examination to be before the council of prud'hommes or some other competent body; and the certificate to be given by the council of prud'hommes.

4. In case of grave abuses the council of prud'hommes, acting on the motion of the local trade commission mentioned in proposition 2, if there be one, and by virtue of their office when there is no such commission, may, after trial, reduce and limit the number of apprentices in an establishment; and in case of a second offense or after very grave faults the council may temporarily or permanently withdraw the right of an offender to employ apprentices. This proposition is based partly upon the assumption that an unscrupulous person might employ a number of apprentices wholly unwarranted by the size of his establishment, with results detrimental to the trade and to the apprentices themselves. There is no idea of limiting the ratio between apprentices and workmen in an establishment or trade.

5. In whatever concerns apprenticeship and the limitation of the number of apprentices in a given trade the law should permit mixed commissions, representing employers' and workingmen's organizations that may have come to an agreement concerning those matters, to appear before the council of prud'hommes and prove an injury caused to all or a portion of their members by unfair competition arising from the abuse of the terms of such agreement by any person, whether he is a party to the agreement or not.

It is stated that the idea expressed in this last proposition could be best carried out by amending the law of March 21, 1884, concerning trade organizations, rather than the law of February 22, 1851. By giving a legal standing to the mixed commissions representing employers' and workingmen's organizations in a given trade, it is hoped the troublesome question of limiting the number of apprentices will be amicably adjusted by employers and workmen in each trade or industry.

These proposed changes in the law would apply only to those who are employed under a written contract of apprenticeship. The commission estimates that nine-tenths of those persons under 18 years of age who are employed in industry or commerce, or about 540,000 in all, would not be protected by the amended law. To insure the proper trade training of these unprotected young persons, it is proposed further to amend the law so as to guarantee them a minimum of trade instruction of a character to correspond with the work upon



which they shall be employed. The instruction may be given in the workshop, but if it can not be given there or if the employer does not wish to assume the responsibility for it, it shall be given in the trade schools and trade courses. The degree of instruction received should be shown by examination and certification. The possession of a certificate of trade instruction by a person under 18 years of age would relieve him and the employer from compliance with the apprenticeship law.

## ONTARIO.

*Third Report of the Bureau of Labor of the Province of Ontario, for the year ending December 31, 1902.* R. Glockling, Secretary. 191 pp.

The present report contains an address on the value and influence of labor statistics, by Carroll D. Wright; a list of the labor bureaus of various States and countries; replies to inquiries of the bureau as to new industries established or desired in various localities; a report on labor organizations, including one on strikes and lockouts; extracts from official publications, showing strikes in Canada, Great Britain, and the United States, and changes of wages in Great Britain; statistics of manufactures; a consideration of free public employment offices; decisions of courts affecting labor, and a chronology and synopsis of the labor laws of Ontario.

LABOR ORGANIZATIONS.—Schedules were sent to 600 addresses, to which 297 replies were received, representing 84 trades or other bases of union. The number and nature of the organizations reporting were 257 trades and labor unions, 10 trades and labor councils, 6 Knights of Labor assemblies, and 3 federations of trades. Detailed reports of organizations are presented, together with a table furnishing a directory of officers and other information relating to each union. Average wages per week and hours of labor of members, with comparisons with wages and hours of labor of unorganized workmen, are also given, but no summaries are presented.

For the period from September 1, 1901, to December 31, 1902, 75 strikes and 4 lockouts were reported, involving about 500 establishments and 6,863 persons, and covering an aggregate of 1,227 days. This does not include 1 strike still pending on December 31, 1902.

MANUFACTURES.—Under this head are presented the returns from 236 establishments, showing for each the number of employees, days in operation, total wages paid, value of product, average yearly earnings and daily wages, and per cent of value of product devoted to wages, and to material, other expenses, and profits. Of these 236 establishments, 222 represent 23 industries, the remaining 14 establishments being grouped as miscellaneous. The returns are for the year ending December 31, 1901. The table following presents the principal totals for each of the industry classes.

## STATISTICS OF MANUFACTURES, 1901.

Industries.	Estab- lish- ments.	Em- ploy- ees.	Total wages.	Aver- age annual earn- ings.	Value of product.
Agricultural implements.....	5	304	\$109,000	\$358.55	\$388,500
Brewing and malting .....	3	75	44,300	590.67	242,190
Canned goods .....	4	488	84,000	172.13	375,000
Cigars .....	3	65	26,690	410.62	79,000
Clothing .....	8	348	111,100	319.25	351,500
Confectionery, etc.....	6	472	168,670	357.35	1,305,000
Carriages and wagons.....	7	414	148,531	358.77	527,297
Brick, cement, etc.....	10	234	82,404	352.15	193,487
Dairy products .....	2	11	1,300	118.18	72,605
Flouring mills.....	17	305	88,934	275.19	1,663,585
Furniture .....	9	836	294,956	352.82	752,174
Gas, electric light, etc.....	24	1,062	541,458	509.85	1,700,721
Lumber .....	13	777	282,092	363.05	680,000
Machinery and iron foundries .....	27	1,232	452,584	367.36	1,708,980
Medicines, etc.....	2	28	8,020	286.43	30,000
Planing mills .....	11	278	74,568	268.23	449,835
Printing and publishing .....	26	550	216,983	394.51	548,104
Pianos and organs .....	4	706	294,220	416.74	842,000
Pulp making.....	2	156	57,300	367.31	394,382
Pork packing .....	2	78	30,606	392.38	1,008,781
Sash, doors, and blinds.....	5	127	42,593	335.38	139,000
Wood specialties .....	10	643	199,115	309.67	523,393
Woolens and cottons.....	22	1,510	314,153	208.05	1,818,553
Miscellaneous.....	14	785	296,844	378.15	2,031,133
Total .....	236	11,484	3,965,421	345.30	17,825,220

To the 11,484 persons employed in the 236 manufacturing establishments an aggregate of \$3,965,421 was paid in wages. The average annual earnings per person was \$345.30 and the average daily wage \$1.18. Of the total value of product, 22.24 per cent went to labor, while the remaining 77.76 per cent was distributed among cost of material, interest, taxes, rent, insurance, miscellaneous expenses, and profit.



## DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks, and when long by being printed solid. In order to save space, matter needed simply by way of explanation is given in the words of the editorial reviser.]

### DECISIONS UNDER STATUTORY LAW.

**EMPLOYERS' LIABILITY—CONSTRUCTION OF STATUTE—VICE PRINCIPAL—SAFE PLACE TO WORK—***Southern Indiana Railway Company v. Harrell, Supreme Court of Indiana, 68 Northeastern Reporter, page 262.*—In this case Jackson H. Harrell sued the above-named railway company for injuries received while in its employment. Harrell was employed with others in the building of a pier for a railroad bridge, and to aid in its construction a derrick had been erected upon a platform a few feet north of a temporary track used to aid in the work. This derrick was so constructed that heavy stones supported by it tended to swing toward the track, this construction being intentional to facilitate its use. Harrell was working with a group of men of whom one Gratzner was foreman, and at the time of the accident which caused the injury was seated on a projecting bent. Just as a train which had been standing at the place of the men's employment was moving away, Gratzner signalled the engineer controlling the derrick to raise a stone which was lying on the pier, and in the meantime three men, Courtney, Clemmons, and Polland, were holding the stone away from the track by means of a rope so that it should not swing against the cars. After a time Clemmons and Polland let go of the rope to go about other duties, and Courtney, finding the stone too heavy for him to hold alone, also let go, so that the suspended stone caught on a running board of one of the passing cars and was made to swing against Harrell, injuring his feet. Gratzner had exclusive charge of the stone work, directing the men and working himself. The action was brought under the second subdivision of section 7083 Burns's Rev. St., 1901, which declares that a railroad company is liable for injury to a servant resulting from the negligence of any person in the service of such corporation to whose order the injured employee was bound to conform and did conform. The circuit court of Greene County awarded damages to Harrell, which judgment was on appeal affirmed in the appellate court. Further appeal was taken to the supreme court, and the judgement of the other courts was reversed.



After stating the facts, Judge Gillett, who delivered the opinion of the court, continued as follows:

This brings us to the question as to whether appellant was responsible for the negligence of Gratzner, assuming that he, as well as Clemmons and Pollard, was guilty of negligence. As to the Employers' Liability Act (section 7083 et seq., Burns' Rev. St. 1901), it is evident that appellant is not liable under the second subdivision of the first section. That subdivision was not intended to create a liability based on an order or direction, where such order or direction was as broad as the whole service, and where the injured servant, without the compulsion of an order or direction from one whose order or direction he was required to obey, was at the time governing himself according to his own judgment as to what was proper. In so far as the fourth subdivision of said section is concerned, it does not appear that Gratzner belonged to any of the classes of servants particularly mentioned therein. The latter part of said subdivision is not any broader than the common law upon the subject; so we may as well consider the remaining question as to liability from that standpoint.

Assuming that Gratzner was negligent, as we have before done, it would follow that appellant might have been liable to a stranger, under the rule of respondeat superior, had he been in appellee's place. But in appellee's case negligence could not be predicated on his injury if it was a result of one of the risks of the service, because as to those risks which the servant assumes there is no duty.

One of the leading duties of a master, except in instances when it can be said that the complaining servant has assumed the particular risk, is to use ordinary care to keep the place where such servant is employed in as safe a condition as the nature of the employment fairly admits of. To make the above statement certain requires a consideration of the meaning of the word "place." If by this it is meant that the master, by himself or representative, must be always present to ward off every transient peril that may menace the servant in the particular spot or place that he may chance to occupy while engaged in the performance of his work, then it must be affirmed that the rule of law devolves upon the master a duty that in many instances it would be wholly impracticable to discharge. A railroad company could scarcely employ vice principals enough to make it sufficiently argus-eyed to guard its servants to that extent. Furthermore, it is to be observed that in some lines of business, like the operation of a railroad, many servants are employed whose respective duties are so correlated that in the very forwarding of the master's business they are protecting the lives and limbs of their coservants; and if some limitation be not put upon the word "place," as respects transient dangers in the conducting of the details of the business, then every one of such servants becomes, for some purposes, a vice principal, and the integrity of the coservant rule is destroyed.

As was said in the decision of *Butler v. Townsend*, 126 N. Y. 105, 26 N. E. 1017: "A place, in its broad sense, is never safe in which an accident happens, and an accident always happens in some place, and so the master might almost become an insurer."

In line with the above observations are the following expressions from the decision of *Hermann v. Port Blakely Mill Co.* (D. C.) 71 Fed. 853: "The word 'place,' in my judgment, means the premises where



the work is being done, and does not comprehend the negligent acts of fellow-servants, by reason of which the place is rendered unsafe or dangerous. The fact that the negligent act of a fellow-servant renders a place of work unsafe is no sure and safe test of the master's duty and liability in this respect, for it may well be said that any negligence which results in damage to some one makes a particular spot or place dangerous or unsafe. To so hold would virtually be making the master responsible for any negligence of a fellow-servant which renders a place of work unsafe or dangerous. It would be doing the very thing which it is the policy and object of the general rule not to do. It would create a liability which the master could not avoid by the exercise of any degree of foresight or care."

Granting that for some purposes the man Gratzner was a vice principal, we are unable to perceive that he was acting in that capacity at the time that he gave the alleged negligent order. The risk of injury from the negligence of a foreman is as much within the servant's assumption as is the risk that he may be injured by the act of any other coservant. [Cases cited.] The evidence in this case shows that Gratzner took part in the physical work of setting stone in the construction of the pier, and he was working as a servant when he gave the order looking to the setting of the stone which injured appellee.

To sum up the question as to the claim of a common-law liability: The appellant was not bound to have a representative present at every moment to keep the place that appellee might chance to occupy safe, as against the possible negligence of a coemployee. The man Gratzner was engaged at the time of his alleged negligence as a servant in forwarding the work. Appellee and Gratzner were coservants, and, as it is not alleged or proved that appellant did not exercise due care in the selection and retention of such foreman, it follows that appellant is not liable for his negligence in the particular instance.

The judgment of the Greene circuit court and of the appellate court are reversed, and the former court is directed to award appellant a new trial.

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EMPLOYERS' LIABILITY—EMPLOYMENT OF CHILDREN—EFFECT OF STATUTE—*Perry v. Tozer, Supreme Court of Minnesota, 97 Northwestern Reporter, page 137.*—In this case James Elmer Perry, a minor, sued by his next friend to recover damages for injuries received while in the service of David Tozer. Perry was 14 years of age and was employed in Tozer's sawmill tending a "slab conveyor" and while so occupied was injured by his foot slipping into the gearing, by which it was drawn into the machinery and so injured as to require amputation of his right leg below the knee. The grounds on which recovery was sought were, first, the unlawful employment of Perry by reason of his immature years; second, the neglect of Tozer to properly guard the sprocket wheel and chain where Perry's foot was caught; and, third, the failure of the employer to give proper warnings and instructions of the risk incurred. Judgment of damages was awarded in the district court of Washington County, from which an appeal was taken on the grounds that the evidence was insufficient



and also that the judge of the lower court had given undue weight to certain legislation relating to the employment of children. The appeal resulted in the judgment of the lower court being affirmed. As to the point of the evidence in the case, Judge Lovely, who announced the opinion of the supreme court, said:

From an examination of the entire evidence we are satisfied that it reasonably tends to show that the guards in front of the gearing where plaintiff's foot was caught, which to outward appearances protected him, would permit the slipping of the operator's foot into the revolving machinery behind the wooden box covering it; and whether the defendant was negligent in this respect was for the jury. Neither is it conclusive that the plaintiff was required to have made a more thorough examination of the gearing and guard near which he was required to place his feet while performing his duties, nor that he assumed the risks and hazards occasioned thereby; hence that part of the blended motion asking for judgment was properly denied. We can not say, either, that plaintiff should have exercised greater caution, or failed in ordinary care, in preventing his feet from being caught. The evidence tended to show that he had received no warning of danger, and upon all these questions the verdict must be held conclusive, and allowed to stand, unless there was error in respect to a material instruction upon the burden of proof, and the damages are so large, in view of plaintiff's injuries, as to indicate that it was the result of passion and prejudice.

On the question of the statutes, the court first cited at some length the provisions relating to the employment of children under the age of 14 years and employment of children during school age and in particular the seventh section of chapter 171, laws of 1895, which forbids the employment of an infant between the ages of 14 and 16 years unless the employer has procured a certificate from the school superintendent or school principal permitting such employment. In discussing the effect of this statute the court spoke in part as follows:

Counsel for defendant insists that the statutes from which we have quoted at length, so far as the same related to children of the age of plaintiff, were intended to secure for their benefit educational benefits only; therefore could not be regarded as a proximate cause of an accident occurring through the neglect of the master to furnish reasonably safe instrumentalities for their work upon dangerous instrumentalities, or in properly protecting the same, or the failure to give necessary instructions to an injured lad of the specific risks he incurred. We can not adopt the view that the sole object of these statutes was to secure educational advantages to children. Neither the history of the subject nor the terms of the enactments themselves will justify such a conclusion.

Authorities of the highest respectability hold that the violation of a statute prohibiting the employment of a child in a hazardous occupation, where such employment is prohibited by law, establishes a right to recover for negligence; hence in such cases liability is to be presumed from the employment in disobedience of law. [Cases cited.]

From the investigation we have made of the reasons for the statute



upon which the instruction of the trial court was based, we have reached the conclusion that the certificate which the school authorities are to give upon their examination of an infant was intended to secure educational advantages to the subjects of legal solicitude, and likewise to vest in the school officials the power to determine, in the exercise of wise judgment, whether, from the intelligence and capacity of such infant, it would be reasonably safe for him to engage in dangerous occupations. The failure to obtain this certificate was a violation of the statute, and entitled the plaintiff to a remedy for the negligent acts of defendant. Hence it was proper to give effect to the conceded disregard of the law, and, where an injury is within the mischief of the statute, it is not easy to see how less weight could be given to the statute than was expressed by the instruction of the trial court, which makes the violation of the law, with consequent injury from the dangerous machinery in use in defendant's mill, *prima facie*, but not conclusive [evidence], of plaintiff's right to recover.

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LABOR ORGANIZATIONS—RIGHT TO LABOR—INTIMIDATION—CONSTITUTIONAL LAW—*Erdman et al. v. Mitchell et al.*, *Supreme Court of Pennsylvania*, 56 *Atlantic Reporter*, page 327.—This case came before the supreme court of Pennsylvania on appeal from the court of common pleas of Philadelphia County, the action being brought by William C. Erdman and others, members of the Plumbers' League of the city of Philadelphia, against Robert T. Mitchell and others, officers and members of the Allied Building Trades of Philadelphia. It appeared that Erdman and his associates were employed as journeymen plumbers in the erection of a large building on which were employed also a number of nonunion workmen and a larger number of workmen of various trades who were affiliated with the Allied Building Trades above mentioned. After the work had progressed for some time, a strike was ordered by the executive board of the Allied Trades, and all workmen affiliated therewith were ordered to desist from further labor on the ground of the employment on the building of nonunion men and the members of the Plumbers' League, which was not affiliated with the Allied Trades. After this strike had gone into effect, the defendants, Mitchell and others, as representatives of the Allied Trades, called on the manager of the firm, who had a general contract for the building, and said that if he would remove the objectionable workmen from the building the strike would cease.

An agreement was finally reached, which was reduced to writing, to the effect that plumbers should be employed who had the card of the Allied Trades, and that all other workmen of other trades now or hereafter employed on the building should have in their possession current cards from unions in affiliation with the defendants' organization. In accordance with this agreement, Erdman and his associates were dismissed from further employment on this building and work was



resumed. The nonunion workmen who had been employed were allowed to continue their service and were not molested. The plaintiffs, Erdman and others, then undertook to find employment elsewhere, but were not able to secure and retain employment in the city on account of the action of the officers of the Allied Trades, who announced to the president of the Plumbers' League, of which Erdman was a member, that it was the purpose of the Allied Trades to prevent the employment of any plumber in Philadelphia who was not a member of a union affiliated with them and that they would use the same means that they had used in the case above described wherever they had the opportunity of doing so.

On these facts the court of common pleas had issued an injunction prohibiting the defendants, Mitchell and others and each and every one of them, their committees, agents, and servants from interfering with and from combining, conspiring, or attempting to interfere with the employment of the plaintiffs or any one or more of them, either by threatening loss to any employer who might take them into his service or by any scheme, combination, or conspiracy among themselves or with others to annoy, hinder, or interfere with or prevent any person or persons or corporation from employing or continuing to employ such plaintiffs or any one or more of them by putting them in fear of loss or trouble, or to do anything to hinder, impede, or obstruct the plaintiffs or any one or more of them from securing employment or continuing in employment. From this injunction the officers of the Allied Trades took an appeal to the supreme court, with the result that the decree of the court below was affirmed and costs assessed upon the appellees.

Judge Dean, for the supreme court, spoke in part as follows:

We have before us the somewhat unusual case of two warring trades unions invoking the law for the settlement of their respective rights, and the determination of their legal conduct in carrying out the purpose of their respective organizations.

The court below was of opinion that in so far as defendants, in furtherance of the purposes of the Council of the Allied Building Trades, undertook, by intimidation of plaintiffs and their employers, to coerce the plaintiffs into joining their organization, or any particular organization, and by such action caused the workmen to suffer damage, such action was unlawful, and ought to be restrained by equity. This conclusion is correct. This is not an indictment for a statutory offense, nor for a common-law conspiracy, which last the legislature, by acts of 1872 (P. L. 1175), 1876 (P. L. 45), and 1891 (P. L. 300), has practically abolished. It is a suit in equity to restrain an unlawful act. It is argued by appellees' counsel that an act may be clearly unlawful, although not the subject of criminal prosecution; that an agreement by a number of persons that they will, by threats of a strike, deprive a mechanic of the right to work for others merely because he does not choose to join a particular union, is a conspiracy to commit an unlawful act, which conspiracy may be restrained.



We do not question that defendants may, under their constitution and rules, resolve that they will not work with members of other organizations or with nonunion men, and act accordingly. That is their right, and their organization, when the conduct of its members is limited to refraining from work themselves according to such resolution, is not unlawful. But it is manifest, from the findings of fact and the testimony, that defendants went far beyond this. The contractors undertook the erection of a large and expensive building. They employed a large number of men skilled in all branches of the building trades, a majority of whom were members of defendants' union. No notice was given by the organization to the contractors that their members would not be permitted to work on the same building with members of plaintiffs' union or with nonunion men. After the building had progressed until it had reached what may be called its critical stage, a strike was ordered of all the workmen affiliated with defendants' union, and two-thirds of all at work quit. After the strike, negotiations for calling it off were opened between the manager for the contractors and defendants, and the result was the agreement with their union heretofore noticed. Then followed the discharge of plaintiffs from work on that building, and then an interview between the president of plaintiffs' union and the secretary of defendants'. The latter told the president that the Allied Trades intended to pursue the same course as at the Mariner and Merchant building on every building in the city, for the purpose of driving every plumber into a union affiliated with the Allied Trades. This evidence would have established a criminal conspiracy at common law. Concede that it would not, under our present legislation, now establish it; nevertheless it is still an unlawful act. There was no complaint as to wages by any of the workmen on the building when the strike was declared. All wanted to work, and their employers wanted them to work. But these defendants who did not work on the building had a grievance. Plaintiffs refused to, and would not, join the defendants' union. They must be driven to joining it by threats of loss of work, and their employers must be compelled to aid defendants by threats of loss of money on their contract. This is so plain that it is waste of time to more than state the facts to convince that the conduct of defendants was calculated to intimidate both employees and employers, and consequently was unlawful. The frightened employers, to avoid further loss, yielded. The plaintiffs did not yield, and, to prevent further intimidation of those who would otherwise employ them, they seek by this suit to restrain defendants from future acts of intimidation.

The first article of the Constitution says: "That the general great and essential principles of liberty and free government may be recognized and unalterably established, we declare, that all men are born equally free and independent and have certain inherent and indefeasible rights, among which are those of enjoying and defending life and liberty, of acquiring, possessing and protecting property and reputation and of pursuing their own happiness." Then follows the conclusion of this section: "Everything in this article is excepted out of the general powers of government and shall forever remain inviolate." This clause, unlike many others in the Constitution, needs no affirmative legislation, civil or criminal, for its enforcement in the civil courts. Wherever a court of common pleas can be reached by the citizen, these great and essential principles of free government must be recog-



nized and vindicated by that court, and the indefeasible right of liberty and the right to acquire property must be protected under the common-law judicial power of the court. Nor does it need statutory authority to frame its decrees, or statutory process to enforce them against the violators of constitutional rights.

The right to the free use of his hands is the workman's property, as much as the rich man's right to the undisturbed income from his factory, houses, and lands. By his work he earns present subsistence for himself and family. His savings may result in accumulations which will make him as rich in houses and lands as his employer. This right of acquiring property is an inherent, indefeasible right of the workman. To exercise it, he must have the unrestricted privilege of working for such employer as he chooses, at such wages as he chooses to accept. This is one of the rights guaranteed him by our declaration of rights. It is a right of which the legislature can not deprive him, one which the law of no trades union can take from him, and one which it is the bounden duty of the courts to protect. The one most concerned in jealously maintaining this freedom is the workman himself.

A conspiracy is the combination of two or more persons by some concerted action to accomplish an unlawful purpose. It is unlawful to deprive a mechanic or workman of work by force, threats, or intimidation of any kind. A combination of two or more to do the same thing by the same means is a conspiracy. That, by the legislation referred to, such conspiracy is no longer criminal, does not render it lawful. At common law the courts held that such combination was so prejudicial to the public interests and so opposed to public policy, as rendered it punishable criminally; but the legislature, which generally determines what is and what is not public policy, has declared that it is no longer a crime or misdemeanor. But this is as far as it has gone. It is as far as it could go without abolishing the declaration of rights. To do that, the whole people of the commonwealth must be directly consulted, and they must give assent. For, while the plain implication from the declaration is that the power to limit this indefeasible right rests solely with the people, yet, when they adopted the constitution of 1874, with an extreme of caution they expressly said, "Everything in this article is excepted out of the general powers of government and shall forever remain inviolate." That is, shall forever remain with the people. They will not trust their own legislature with power to minimize or fritter it away—much less, a trades union. If the legislature to-day abolished indictment for willful and malicious trespass, or abolished the writ of estrepement, to-morrow courts of equity would still be bound, under the declaration of rights, to protect the citizen in the peaceable possession and enjoyment of his land, even if to do so they were compelled to imprison the lawless trespasser who refused to obey their writs. So the same courts are still bound to protect the humblest mechanic or laborer in his right to acquire property.

It is argued that defendants, either individually or by organization, have the right now to peaceably persuade plaintiffs and others not to work, and their employer not to hire them. So they have. It is further argued that they can quit work when they choose. So they can. But neither of these suggested cases is the one before us. Here a strike on a large building was declared because plaintiffs would not join a par-



ticular society. The declared purpose of the strike was to cause loss of employment to plaintiffs because they would not join the Allied Building Trades—chose to remain faithful to their own union, the Plumbers' League. The Allied Trades would not declare the strike off, and permit work on the buildings to proceed until the employers entered into contract; practically stipulating that they would discharge plaintiffs, and not reemploy them. It is not important that apt language precisely expressing the threat should have been used. The meaning of their declarations and acts was well understood by all parties. The men lost their work. The employers, after a damaging stoppage, were permitted to proceed because they yielded to the threat; that is, they were intimidated because they feared further loss. How absurd it is to call this peaceable persuasion, and how absurd to argue that, if the law attempts to prevent it, the right of the workmen to organize for their common benefit is frustrated! And then, what about the right of the Plumbers' League to organize for the common benefit of its members, of whom the plaintiffs are a part? The declared purpose of the Allied Trades is by these acts to absorb this union, and thereby destroy it. Under no possible view of the conduct of defendants was it lawful.

And so, as already intimated, it comes simply to the question, shall the law of an irresponsible trades union, or shall the organic law of a free commonwealth, prevail? We answer, every court of the commonwealth is bound to maintain the latter in letter and spirit.

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MUNICIPAL CORPORATIONS—EMPLOYMENT OF ALIENS ON PUBLIC WORKS—CONSTITUTIONALITY OF STATUTE—*City of Chicago v. Hulbert et al.*, *Supreme Court of Illinois*, 68 *Northeastern Reporter*, page 786.—This was a case in which Hulbert and others had contested the validity of an ordinance providing for the improvement of a street in the city of Chicago. The matter was before the court of Cook County and also before the supreme court of Illinois on various hearings and appeals, in the course of which one point of more general interest was developed. The statute of June 1, 1889, relating to the employment of aliens on public works had not been observed by the contractor in carrying out the work of improving the street, and on this ground payment was contested in the course of the second appeal to the supreme court. On this point we quote from the remarks of Judge Ricks the following statement, in which that law was held to be unconstitutional.

It is now insisted by appellees that the proceedings are void, and that this ordinance can not be sustained, because paragraph 10 of chapter 6 of our statutes, entitled "Aliens," was not complied with (Hurd's Rev. Stat., 1901, p. 141). That paragraph provides that "it shall be unlawful for any \* \* \* officer \* \* \* acting for \* \* \* any city, \* \* \* or any contractor, or subcontractor, under any or either of said municipalities, to employ any person or persons, other than native born or naturalized citizens, or those who have in good faith declared their intentions to become citizens of the



United States, when such employees are to be paid, in whole or in part, directly or indirectly, out of any funds raised by taxation." Paragraph 11 of the same statute requires anyone employing labor to be paid out of the public funds to make a list of the persons so employed, showing that they meet the requirements of the foregoing paragraph, and paragraph 12 fixes a penalty for a violation of paragraph 11. Appellees took evidence showing that this statute was not complied with, and insist that, as these public funds go to the contractor who violated that law, the ordinance can not be sustained. A similar law was enacted by ordinance in the city of Chicago, and we have repeatedly held that such law is invalid, as it is in contravention of the constitution and the right of individuals to contract. The statute in question is void upon the same grounds, and neither the city nor the contractor was under any obligation to observe it.

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RAILROAD COMPANIES—LIABILITY FOR INJURY OF EMPLOYEES OF ANOTHER ROAD—JOINT USE OF TRACKS—*Keck v. Philadelphia and Reading Railway Company, Supreme Court of Pennsylvania, 56 Atlantic Reporter, page 47.*—This was an action by Eliza A. Keck against the Philadelphia and Reading Railroad Company to recover damages for the death of her husband, who was an employee of the Central Railroad Company of New Jersey in the capacity of a locomotive engineer. By permission of the Philadelphia and Reading Railroad Company, the Central Railroad drew its trains over the tracks of the Reading Company at the point where the accident occurred, using its own engine and crew. There were parallel tracks at the place referred to, on one of which a train of the Reading Company was standing still and another in motion, the two trains being headed in the same direction. The train on which Keck was engineer was on the adjacent track, and just as he reached the rear of the stationary train of the Reading Company the moving train ran into the stationary one, throwing the caboose upon the engine of the Central train and killing Keck. The question turned upon the liability of the Reading Company for injury occurring under such circumstances, a statute of April 4, 1868 (Brightly's Purdon's Digest, p. 1604), which provides that any person who sustains injury while lawfully engaged or employed on or about the roads, works, or premises of a railroad company of which company he is not an employee shall have only the right of action that an employee would have had, being relied upon to relieve the railroad company from liability. The court of common pleas of Philadelphia County had awarded damages to Mrs. Keck, which judgment was on appeal affirmed. Judge Mitchell, speaking for the court, used in part the following language:

When the same tracks are used by two railroad companies, how far does the operation of the act of April 4, 1868 (P. L. 58), in relief of each from liability to the employees of the other, depend on the ownership or title to the tracks? Independently of the statute, each com-



pany was liable to the employees of the other for negligence, just as to any other strangers; the general similarity and aim of the duties not being sufficient to bring them within the rule as to risks of a common employment. (*Catawissa R. Co. v. Armstrong*, 49 Pa. 186.) The general effect of the act was, as has been said, to make three classes of persons—employees, quasi employees under the act, and strangers. It was held in *Spisak v. B. & O. R. Co.*, 152 Pa. 281, 25 Atl., 497, that the cases under the act fall into two classes—first, where the place of the accident “is clearly and for general purposes the ‘roads, works, depots or premises’ of the railroad company. In such cases it is sufficient if the person injured is lawfully ‘engaged or employed on or about’ them, and is not a passenger. \* \* \* The other class is where the accident occurs in a place which is not exclusively and for general purposes, but only within a limited and statutory sense, the premises of the railroad company. In this class the nature of the employment at which the party injured was engaged at the time becomes material. If it is business connected with the railroad, in the sense that it is ordinarily the duty of railroad employees, then, while the party is engaged at it, the statute treats him as a quasi employee, and puts his rights on the same basis. If, however, the work has no relation to railroad work, as such, and is connected with the railroad only by irrelevant and immaterial circumstances of locality, the case is not within the statute at all.” This distinction has been constantly adhered to since, and, under it, when an accident occurs upon a track used by different roads, the question at once arises, whose track is it to be considered, for the purposes of the act of 1868?

The cases establish that the nature and extent of the ownership of the tracks is not a controlling factor. [Cases cited.]

The rules to be deduced from the cases, as substantially determined in *Kelly v. Traction Co.*, are: First. Where the same track is used by two railroad companies it must be considered, for the application of the act of 1868, as the property of each while using it. Secondly. Whether the use be by virtue of joint or several ownership, charter right, lease, license, or traffic agreement, is immaterial. Thirdly. To bring the case within the second class, distinguished in *Spisak v. B. & O. R. Co.*, 152 Pa. 281, 25 Atl., 497, namely, those where the employment is ordinarily the duty of railroad employees, the plaintiff must not only be engaged in such work, but also be so engaged for or upon the property of the railroad by whose negligence he is injured. Thus in the present case the plaintiff’s husband was engaged in railroad work as a locomotive engineer, but not for the defendant, nor upon premises which were to be treated as defendant’s at that time. He was therefore not within the act. Fourthly. In such cases the employees of each road accept the risks of their employment in regard to their own road, but not those incident to the operation of the other road, unless at the time engaged in some work for the other, or for both roads jointly.

The distinctions thus made were not directly developed by the facts in the earlier cases, but, as already shown, the language of the opinions indicates the trend of thought on the subject, and no case has been decided which upon its facts is out of harmony with the rules now laid down.

Judgment affirmed.



## DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—EMPLOYEE ATTEMPTING RESCUE—*Pittsburg, Cincinnati, Chicago and St. Louis Railway Company v. Lynch*, Supreme Court of Ohio, 68 *Northeastern Reporter*, page 703.—This was an action by one Lynch against the above-named railway company for injury received while in its employment as watchman at one of its crossings in the village of Dennison. Lynch was, at the time of the accident causing the injury, engaged in looking after the safety of a number of school children who were crossing the tracks, which were at that street ten in number, when, without warning, a caboose was kicked over the crossing on a track upon which a woman was standing, who was, as he believed, in danger of being run down by the caboose. She failed to observe his signal given by the use of the flag, and he then hastened to her rescue, pushing her from the track, in doing which he himself received serious injury. The caboose was moving at the rate of about 8 miles an hour, without any one on its forward end to give warning of its approach. Lynch sued in the circuit court of Tuscarawas County, alleging that the company was negligent in the manner of backing its caboose and in other respects, such negligence being alleged as the cause of his injury. The company denied that it was negligent, and pleaded that if Lynch was injured it was the result of his own carelessness. The circuit court gave Lynch judgment for damages, which, on appeal, was affirmed by the supreme court. The finding of the court is embodied in its syllabus in this case, which is as follows:

1. In an action to recover on account of injuries sustained in an effort to save human life, the conditions upon which there may be a recovery are "that the person whose rescue is attempted must be in a position of peril from the negligence of the defendant, and the rescue must not be attempted under such circumstances or in such a manner as to constitute recklessness." Those conditions appearing, a recovery will not be prevented by the fact that negligence of the person whose rescue is attempted contributed to his peril, nor by the fact that the plaintiff is an employee of the defendant.

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INJUNCTION—ASSOCIATIONS—RIGHT TO EMPLOYMENT.—*Atkins et al. v. W. & A. Fletcher Company et al.*, Court of Chancery of New Jersey, 55 *Atlantic Reporter*, page 1074.—In this suit Benjamin Atkins and others, members of the International Association of Machinists, prayed for a preliminary injunction against the W. & A. Fletcher Company and their associates, members of the New York Metal Trades Association. On hearing before Vice Chancellor Stevenson this injunction was denied. The conditions in the case and the law controlling are set forth in the remarks of Vice Chancellor Stevenson, from which the following is quoted:



The complainants, 46 in number, are machinists recently employed by the defendant corporation W. & A. Fletcher Company, but now on a strike. The complainants, "with certain other machinists, have formed a voluntary association for the purpose of bettering the condition of machinists in general and the members of such association in particular," which voluntary association is known as the International Association of Machinists. The bill sets forth that the defendant the W. & A. Fletcher Company, and some 30 or 40 individuals, partners and corporations, who are named, "have formed a voluntary association known as the New York Metal Trades Association," which is organized for the purpose of dealing with labor difficulties affecting the metal trades in New York Harbor. It further appears from the bill and accompanying affidavits that, "in order to carry out the design" of the International Association of Machinists, the complainants "have endeavored to obtain as many machinists as possible to join them," and have maintained a system of quiet, peaceable picketing in the streets near the machine shops of the W. & A. Fletcher Company. All unlawful practices in connection with this picketing are denied, and the bill sets forth in detail various reasons why, for the accomplishment of the objects of the complainants in their voluntary association, the maintenance of pickets is lawful and proper, if not necessary. The grievance of which the complainants complain is that the defendants, acting in combination, are interfering by intimidation, threats, violence, arrests, and other unlawful practices with the pickets of the complainants.

The complainants do not stand before the court as employees or persons seeking employment, whose natural expectation of obtaining work in machine shops is defeated because the defendants, by intimidation and molestation practiced upon the proprietors of the machine shops, constantly thwart them in their effort to get employment. In brief, the complainants stand before the court as employers, and not as employees.

It is true that the bill alleges that the "members of the New York Metal Trades Association have entered into a conspiracy to force and compel the complainants to work for the W. & A. Fletcher Company upon such terms as the W. & A. Fletcher Company may demand, and have conspired together for the purpose of preventing the complainants from earning a living at their trade as machinists, and that they are carrying out and effectuating the said conspiracy, and that they have discharged such of the complainants as have received employment from any of the members of such association as soon as they ascertained that the complainants were former employees of the Fletcher shops, and the only reason assigned was that the complainants are former employees at Fletcher's, on strike." This allegation of the bill seems to be based upon the erroneous idea that employers have not the right to combine freely to refuse employment to any kind or class of workmen precisely as employees have a right to combine freely to refuse to be employed by any employer who sees fit to employ workmen of whom they disapprove, or sees fit in any respect to conduct his business contrary to their views. But, apart from this consideration, the bill is not filed by the particular machinists who thus have been discharged to restrain defendants, acting in combination, from unlawful conduct which has secured their discharge, and now stands in the way of their being employed by persons who, if left free, would



be willing to give them work. The discharge of some of the complainants, whether procured lawfully or unlawfully, is not to be regarded, under the allegations of this bill, as a grievance of the particular workmen who have been so discharged. It must be regarded solely as a grievance on the part of the 46 complainants, as constituting the International Association of Machinists, and in their capacity as employers of labor, if such discharge can constitute a grievance of said association.

It also appears from the bill and affidavits that the International Association of Machinists have employed some of the complainants at a daily wage to do certain services which evidently may be all deemed embraced in the word "picketing," and that "many of the complainants have been so employed during said strike, and that they or most of them have been compelled to give up such employment by reason of the annoyance, insults, violence, force, intimidation, threats, unlawful arrests, and malicious prosecutions to which they were subjected by the Fletcher Company and the New York Metal Trades Association and their employees," etc. Here again we have a charge of unlawful conduct on the part of the defendants which has caused some of the complainants to be deprived of what is claimed to be a lawful employment, by which they may be said to be earning their living at a daily wage. But this bill is not filed by the complainants as pickets, as persons employed in a certain business whose opportunities for employment are cut off by the alleged unlawful conspiracy of the defendants. The interference with the work of the pickets must be regarded in this case as an alleged grievance of the International Association of Machinists.

This bill presents the complaint of this voluntary association, as a partnership, engaged in the accomplishment of certain objects, many of which are benevolent. Any intimidation or other interference with the pickets employed by the association may be regarded as a possible grievance of the association, but can not be regarded in this suit as a grievance of the pickets themselves. It will be time enough to consider any such grievance of the pickets when the pickets file their bill or bills for relief.

No question has been raised as to the capacity of the 46 machinists to file this bill on behalf of the entire voluntary association known as the International Association of Machinists, although the argument on both sides assumed that this international association embraces large numbers of machinists throughout various States of the Union. Confusion no doubt has resulted in the argument of this motion from the fact that 46 of a large number of partners or voluntary associates file a bill apparently for the protection of the right of the entire partnership or association to employ labor and to enjoy a free labor market, while the same bill sets up what might be deemed as separate causes of action in equity on the part of different sets of these 46 complainants seeking employment in their trade as machinists, or seeking employment in the business of picketing for a daily wage. All the allegations of this bill, although they may contain a large number of separate causes of action in equity on behalf of employees of one kind or another, whose right to make a living has been interfered with, must be considered solely with reference to the capacity in which the 46 complainants stand before the court, and the complaint which they make in such capacity. As I have said, the complainants stand before



the court as employers of labor, and their grievance is that the defendants, acting in combination, are unlawfully interfering with the right of the complainants as such employers of labor to have labor flow freely to them. (*Jersey City Printing Co. v. Cassidy*, 63 N. J. Eq. 759, 53 Atl. 230.) [See Bulletin of the Department of Labor, No. 45, p. 383.]

The mere statement of the nature of the complainants' case—the only case, as this bill is framed, which I think the court can now take cognizance of—indicates the fatal objection to granting in such case the remedy of injunction.

The mere fact that defendants, in combination, by molestation and intimidation, or by criminal violence, interfere with the free flow of labor to an employer, does not necessarily give such employer the right to come into a court of equity and procure an injunction for his protection. The employer, complainant, must show not only that the conduct of the defendants in combination unlawfully obstructs him, the complainant, in enjoying his natural expectancy in respect of the labor market, but that the natural and proximate result of the unlawful conduct complained of will be to inflict upon him, the employer, substantial money damages, for which the remedy at law is inadequate.

The right of partners or voluntary associates who are engaged in supporting a strike to freedom in the labor market, so that they can readily employ pickets and other agents in carrying on their side of the industrial war, has certainly never been recognized by a court of equity as a proper subject of protection by means of an injunction. No such right on the other hand has been recognized and protected for the benefit of persons engaged in resisting a strike. If the New York Metal Trades Association, with its large and powerful combination of employing partners, corporations, and individuals, should file a bill against the complainants to secure an injunction, protecting them, the Metal Trades Association, in employing detectives, agents, and pickets to assist the W. & A. Fletcher Company in this contest with its employees on strike, it seems to me the case would present the same fatal defect which is exhibited in this present case. What a court of equity will protect by an injunction in a proper case are the rights of the two parties directly interested in this conflict, W. & A. Fletcher Company and their employees—the right of the one to employ and the right of the other to be employed; the right of both to have a free labor market upon which the opportunity to make money and make a living depends. \* \* \*

I do not want either party to this case to understand that I have undertaken to lay down with accuracy the entire strike law applicable to this present case or suggested by it. The primary rights which are violated by strikes and boycotts, and the remedial rights which thereby arise, are far from a condition of complete development or accurate definition. The law of this whole subject is to a large extent unsettled, and involved in dispute and difference of opinion among judges and text-writers. In this condition of the law it is certainly safe to hold that in a novel case like this a preliminary injunction, at least, ought not to be issued, where the complainants do not show any substantial pecuniary damage, and it appears that the defendants, or some of them, are amply responsible for any money damages which may be recovered against them in an action at law.



INJUNCTION—PICKETING—*W. & A. Fletcher Company v. International Association of Machinists et al.*, *Court of Chancery of New Jersey*, 55 *Atlantic Reporter*, page 1077.—In this case the W. & A. Fletcher Company prayed for an injunction against the International Association of Machinists and others to restrain picketing by strikers. Restraining orders had been previously issued as against certain employees who had left the service of the complainants, and the prayer to make the injunction extend to all picketing was denied. The conclusion of the court and the reasons therefor appear in the following extract from the remarks of Vice Chancellor Stevenson, speaking for the court:

In the injunction suit brought by the Fletcher Machine Company against the International Association of Machinists and others the conclusion which I have reached is that the complainant is not entitled to any further preliminary restraint than that which is now embodied in the restraining orders. The motion was argued on both sides, practically with the admission that there was nothing objectionable in the restraining orders as they now stand; that those orders were proper, and should remain binding upon such of the defendants as stand fairly charged under oath with conduct which brings them within their reach.

The counsel for complainant practically confined his argument to the proposition that a preliminary injunction should go in the case to restrain picketing, without reference to the object of the picketing or its effect. If this view is correct, it follows that workmen maintaining a strike have no right to station pickets merely for the purpose of giving them such information in regard to their late employers' operations as may be discovered by ordinary observation. It seems to me that this claim is not well founded; that it is contrary to the great weight of reason as well as authority.

Picketing may be lawful; picketing may be unlawful. Whether picketing is lawful or unlawful depends wholly upon the purpose with which it is carried on, or perhaps, it would be more accurate to say, the effect which is produced by it. If the purpose and effect are to intimidate, to interfere with the liberty of workmen in seeking employment, to interfere with what in another case I called the employer's right to have labor flow freely to him, so that a reasonably courageous person would be restrained from offering his labor to such employer, then picketing is unlawful, and, where the other necessary conditions for the interference of a court of equity exist, will be prohibited by an injunction.

If, however, the picketing is carried on for the mere purpose of obtaining information, or for the purpose of conveying information to persons seeking or willing to receive the same, or even, in some cases, for the purpose of bringing orderly and peaceable persuasions to bear upon the minds of men who desire to listen to the same, the object of such persuasions not including in any way the disruption of an existing contract for labor, then there may be no unlawful element in the picketing, and carrying it on may found no action at law, and certainly may not call for any interference on the part of a court of equity.



The insistment of counsel for the complainants would seem to include the proposition that workmen on strike can not maintain pickets (although merely for the purpose of obtaining such information as can be procured by the use of the eyes and ears) without violating the employer's right to the enjoyment of a free labor market, and thereby causing him substantial and irreparable damage. This proposition seems to me to be utterly untenable. The restraining orders, therefore, will stand in their present form as against those defendants, as I stated, as are charged under oath with such conduct as brings them within their operation.

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LABOR ORGANIZATIONS—CONTEMPT OF COURT—LIABILITY OF UNION—*Chicago Typothetæ et al. v. Franklin Union No. 4 et al.*; *People v. Franklin Union No. 4*, Superior Court of Cook County, *Legal News* (verified report).—In this case Franklin Union No. 4, an incorporated union of employees, was before the court to show why it should not be held as for contempt for the violation of an injunction issued October 10, 1903. The bill charged that the union and its members and officers had conspired and confederated with each other, and with divers other unknown persons, unlawfully to obstruct and interfere with the business of the Typothetæ, a voluntary association of employers engaged in the business of printing and publishing, and prayed for an injunction restraining the union and its officers and members “from in any manner interfering with, hindering, obstructing, or stopping any of the business of the complainants, or their agents or employees, in the operation of their business,” by trespass, threats, intimidation, violence, or unlawful persuasion. The injunction was granted as of the date given, to the effect above stated; it also forbade “picketing, patrolling or guarding the streets, avenues, gates and approaches, and places of business of complainants for the purpose of intimidating, threatening and coercing, or unlawfully persuading any of the complainants' employees, or of preventing persons seeking employment with them from going to and from their daily work at the places of business of complainants,” etc.

An agreement as to wages had been made by the Typothetæ and the Franklin Union No. 4 on April 1, 1901, to continue until December 31 of that year, but was continued by tacit consent until abrogated September 27, 1903, by the action of the union declaring it “null and void,” and a strike was agreed upon.

Further facts and the conclusions of the court appear in the following extracts from the remarks of Judge Holdom, who delivered the opinion:

The record of Franklin Union No. 4 shows that the strike benefit was to be limited to \$5 per week for single men, and \$7 per week for married men, and further provided that, “the levy of a special assessment of \$2 a week, the same to continue during the entire strike, until



suspended by act of the union, and to be levied on the entire membership who are employed; those on a strike to be excused during the term they are on strike, but the assessment to be enforced as soon as they secure work."

"That suitable headquarters be engaged on the south and west sides for the purpose of transacting the business of the union in regard to the strike."

The record shows further that, "the president on motion then appointed the following committees: Strike committee \* \* \* conference committee \* \* \* and visiting committee \* \* \* also that President Woerner appointed Gorf, McCabe, Gondeck, Boettger, Mansfield and Kavanagh, assistant sergeant-at-arms.

The record in this case shows that a number of the members of Franklin Union No. 4 have been sentenced to fines and imprisonment for violations of the injunctive order in picketing and patrolling, in intimidating and in assaulting those working for, and others seeking employment with, complainants, members of the typothetæ, and that assaults of employees have continued with little cessation in and about the plants of complainants and the homes of their employees; that members of the union have intercepted employees and intimidated and induced them to quit their employment; that headquarters were established at 14 Custom House Place, in the vicinity of the places of business of complainants, and that to that place members of Franklin Union No. 4 acting as pickets have taken employees of complainants who have been promised the payment of \$5 per week on condition that they quit their employment. It has further been proven that strike benefits, so-called, have been paid at this strike headquarters established pursuant to the resolution of Franklin Union No. 4 at its special meeting of September 27, 1903. It is in evidence that Woerner, the president, and Shea, the secretary and treasurer of the union, have been present in court on most of the occasions when its members have been on trial for a violation of the injunction in picketing, assaulting employees, etc., as well as the several times when the sentence of the court has been pronounced upon the persons adjudged guilty of violating the injunction. It also appears that Shea, as treasurer, paid strike benefits, so-called, to the members who formerly worked for complainants and who left their employ in accordance with the action of the union at its meeting on September 27 last; that there was no discrimination made against those members picketing and patrolling; they were paid strike benefits the same as noncombatants. It is in evidence that Kavanagh, the sergeant-at-arms, has been on the picket line and assaulted employees. Franklin Union No. 4, as appears from the statements of its counsel, is composed of about 1,800 persons, and not more than 200 of them are involved in the dispute existing between the union and the members of the Chicago Typothetæ. It also appears that picketing and patrolling about the places of business of complainants were continuous from October 5 until November 21, the date of the filing of the petition against respondent for the rule to show cause herein.

From the affidavits in evidence in this case it appears that more than 50 people have been, since the inception of the difficulties set forth in the bill, assaulted, intimidated, called opprobrious epithets and threatened with harm, simply because they worked in a place vacated voluntarily by members of Franklin Union No. 4, all of the alleged



aggressors, with the exception of John Mucher, being members of the union, and John Mucher, condemned twice for assault and unlawful picketing in company with members of the union, in violation of the injunction, has been defended by the lawyer of the union. On October 13, 1903, D. E. Drydon, employed by Marsh & Grant, was knocked down by Assistant Sergeant-at-Arms Kavanagh of Franklin Union No. 4, and assaulted and kicked by other strikers; Bertha Kester was visited several times by John Hagberg, a member of the visiting committee of the union, also Etta Goellnick, visited by the same John Hagberg, Sophia Baumel also visited by said John Hagberg, all given the union card and offered money to quit their employment, and also threatened with harm, and in the case of Sophia Baumel told that her picture would be posted in the neighborhood where she resided as a "scab."

The primary question for solution is, is Franklin Union No. 4 under these evidential facts so connected with the violations by its members of the injunction as to make it a party to such violations and liable as for a contempt?

The bill charges a conspiracy to do unlawful acts against the complainants in impeding them in the free and lawful conduct of their business and affairs. The crucial test therefore is, does the evidence connect the union with this conspiracy, and, with either knowledge of, or acquiescence in, one or more of the acts proven and adjudged, to constitute a violation of the injunctive order?

The fountain source of the difficulties between the members of the Chicago Typothetæ and Franklin Union No. 4 sprang from the actions of the union at its special meeting of September 27 last. Many of the acts there transpiring were in themselves lawful. The refusal further to abide by the agreement then in existence was a privilege accorded to the union by law, notwithstanding the reasons assigned for the action of the union may have been unwarranted or based upon false premises. The appointment of assistant sergeant-at-arms, a strike committee, a conference committee, and a visiting committee, the levying of a special assessment on employed members of \$2 a week, the ordering of the payment of \$5 and \$7 per week to single and married men respectively as strike benefits, and providing strike headquarters on the south and west sides of Chicago, in the light of subsequent events, were evidently made in anticipation of the strike which afterwards occurred, and of its maintenance by the union by unlawful methods. While the union disclaims all knowledge of picketing, interference, threats, assaults or other overt acts of violence by its members or officers, yet from the foregoing it abundantly appears that they prepared for a possible condition which immediately materialized in industrial warfare on the part of the union and its members against the employees of complainants; and after the inauguration of this hostile attitude we find Assistant Sergeant-at-Arms Kavanagh engaged in assaulting Drydon, an employee of complainants Marsh & Grant, and in endeavoring to induce others by threats on the one hand and promises on the other to quit their employment, and we find him taking such employees to the strike headquarters of the union in Custom House Place; and we also find John Hagberg, a visiting committeeman, interfering with Bertha Kester, Sophia Baumel and Etta Goellnick, employees of Shay, Smith & Co., by promises and threats and intimidation, and afterwards being followed on the street by a so-called colored picket named Crutchfield, calling them "scabs," and other



opprobrious names. We find further, that in pursuance of the union's resolution in paragraph nine, the members of the visiting committee received \$2.50 per day for each day's time lost, and we find all payments in connection with the strike being made at the strike headquarters in Custom House Place by Shea, treasurer of the union, from the funds of the union.

Bearing in mind that the charge in the bill is that of conspiracy, and that the acts enjoined were those used in furtherance of such conspiracy, it would seem from the evidential facts that the actions of the union at the meeting of September 27, in the establishment of the strike headquarters on Custom House Place, the assault and intimidation by Assistant Sergeant-at-Arms Kavanagh, and by visiting committeeman Hagberg, the payment of strike benefits at the strike headquarters by the union treasurer with the union money, and the fact that no discrimination was made against the members of the union known to be guilty of acts in themselves criminal, establish the union as a coconspirator with its offending members, party and privy to the violations of the injunction of which some of its members stand convicted, and therefore guilty of violation of the injunction and amenable to discipline for such violation providing it can be so disciplined under the law.

The liability of the respondent union rests upon the evidence arising from the record of its meeting of the 27th of September, last, the introduction of which was procured by the service of a subpoena duces tecum upon Shea as secretary. To the examination of Shea and to the inquiring into, examining or offering in evidence of the union's records counsel for the union objected. The objection, however, was general and therefore unavailing.

Conspiracy once established each conspirator becomes responsible for the means used by any conspirator in accomplishing the purpose of the conspiracy. (*State v. McCahill*, 30 N. Y. Rep. 553; *Lasher v. Litell*, 202 Ill. 551.)

No striking member of the union guilty of unlawful acts has been informed against to the municipal authorities, neither has his strike benefits been withheld, nor has any one of them been disciplined in the slightest manner.

That a corporation as such may be dealt with for the violation of an injunctive order as for a contempt of court is sustained by abundant authority, and is not seriously disputed by counsel for the respondent. [Cases cited.]

It appearing that Franklin Union No. 4, a corporation, is liable to a fine for violation of the injunction in this case, it but remains for determination as to what the amount of that fine shall be. Punishment is meted out in accordance with the gravity of the offense committed. The consequences of violation of the injunction by the union have been many assaults on innocent persons seeking to work under contracts satisfactory to themselves and their employers. There has been no discrimination between the sexes. Women have been assaulted and terrorized and followed to their homes and their families intimidated. Murder has even resulted from the unlawful acts of the union and its striking members. The complainants have been interfered with and arrested in the prosecution of their lawful affairs and business and have been put to great expense, annoyance and anxiety in asserting their rights before the law and in seeking the protecting arm



of this court. The violation of the injunction has necessitated many and frequent appeals to this court involving complainants in much additional legal expense. On the other hand there is no evidence, except inferentially, of what property or money the union is possessed; but it does appear from the records of the union, and the admissions of counsel, that the strike assessment is levied against not less than 1,500 of the working members of the union, and that the strike benefits are paid to not more than 200 of its striking members. Conceding that all of these striking members are married men, the weekly payments would amount to \$1,400, and the weekly receipts of the union from the strike assessment would amount to \$3,000, a difference upon the credit side of the union's ledger of \$1,600. To what purpose or use was it intended, when the assessment was made, to put this large weekly sum of money, and to what uses has it been put in fact during the continuance of this strike? It is true that the record is silent upon this question, but it does appear that the treasurer destroyed all evidence of his disbursements and to whom or upon what account the moneys of the union were paid out. What is the necessary inference from this condition? The union prepared for this strike by making this assessment. It must be assumed the money was needed for the purposes of the strike, and it does no violence to either reason or logic to assume that the necessary implication from this condition is, that the money is used to maintain the strike which has been and is carried on by unlawful methods, and that the money has been and is used for the purpose of discharging obligations thus incurred.

There is no reported case that I have been able to find of a fine having been imposed upon a labor union, probably for the principal reason that few of them are incorporated.

The evidence in this case shows that since the inauguration of this industrial controversy between Franklin Union No. 4 and the complainant members of the Chicago Typothetae, the union and its striking members have resorted to violence for the purpose of enforcing their demands, and as a *sine qua non* to the attainment of that purpose, if needs be, have sought to destroy the business and property rights of these several business houses. Such warfare can not and will not be tolerated by the courts in a land of peace, where the people are governed by law, and the law would be lacking in one of its most necessary attributes if it was impotent to punish for such violation.

The order of the court will be that the respondent, Franklin Union No. 4 of Chicago, be adjudged guilty of contempt of this court for its violation of the injunction order issued herein on the 10th day of October, 1903, and for such violation it is fined the sum of \$1,000, which it is ordered to pay to the clerk of this court within ten days of this date, and in default of such payment within said ten days a writ of fieri facias in the usual form is ordered to issue against it in the name of the people of the State of Illinois for its collection.



## LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of this Bureau contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

### ALABAMA.

#### ACTS OF 1903.

##### Act No. 57.—*Employment of children.*

SECTION 1. No child under the age of twelve (12) years shall be employed in or about any factory or manufacturing establishment within this State unless a widowed mother or aged or disabled father is dependent upon the labor of such child, or in case a child is an orphan and has no other means of support. No child under the age of ten (10) years shall be so employed under any circumstances.

SEC. 2. It shall be unlawful for any factory or manufacturing establishment to hire or to employ any child unless there is first provided and placed on file in the office of such employer an affidavit signed by the parent or guardian or person standing [in] parental relation thereto, certifying the age and date of birth of said child; any person knowingly furnishing a false certificate of the age of such child shall be deemed guilty of a misdemeanor, and shall be brought before some justice of the peace or other court or officer having jurisdiction for trial, and upon conviction shall be punished by a fine of not less than five nor more than one hundred dollars, or be sentenced to hard labor for a term not exceeding three months.

SEC. 3. No child under the age of thirteen (13) years shall be employed at labor or detained in any factory or manufacturing establishment in this State between the hours of 7 p. m. and 6 a. m. standard time, and no child under the age of sixteen (16) years shall be so employed or detained between said hours for more than forty-eight hours in any one week; and no child under the age of twelve shall be employed or detained in any factory or manufacturing establishment for more than sixty-six (66) hours in any one week.

SEC. 4. Any person, persons or corporation or representative of such corporation who violates any of the provisions of this act, or who willfully or knowingly suffers or permits any child to be employed in violation of its provisions, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not more than (\$200) two hundred dollars.

Approved February 25, 1903.

##### Act No. 94.—*Accidents on railroads.*

SECTION 18. Every person or corporation operating a railroad shall give notice to the commissioners of any accident happening on any portion of its line within this State, which is attended with serious injury to the person of any one, within twenty-four hours thereafter; and upon receiving such notice, or upon public rumor of such accident, one or more of the commissioners may repair to the scene of the accident, and inquire into the facts and circumstances thereof; and the result of such inquiry, with such details as may be deemed necessary, shall be entered upon the record of the proceedings of the commissioners, and embraced in their annual report.

Approved February 28, 1903.

##### Act No. 229.—*Children laboring to support parent in idleness.*

SECTION 1. \* \* \* Any person who is able to work, and who does not work but hires out his minor children and lives upon their wages; \* \* \* is hereby declared to be a vagrant and must on conviction be fined not more than five hundred (\$500) dollars and may also be imprisoned in the county jail or sentenced to hard labor for the county for not more than six months: *Provided*, That it shall be a sufficient defense to the charge of vagrancy under any of the provisions of this act that the defendant has made bona fide efforts to obtain employment at reasonable prices for



his labor, and has failed to obtain the same. The provisions of this act shall not apply to persons who are idle under strike orders or lockouts.

Approved September 22, 1903.

ACT No. 329.—*Boycotting, blacklisting, etc.*

SECTION 1. It shall be unlawful for two or more persons to conspire together for the purpose of preventing any person, persons, firm or corporation from carrying on any lawful business within the State of Alabama, or for the purpose of interfering with the same.

SEC. 2. It shall be unlawful for any person or persons to go near to or loiter about the premises or place of business, of any person, firm or corporation engaged in a lawful business, for the purpose of influencing or inducing others not to trade with, buy from, sell to or have business dealings with such person, firm or corporation, or to picket the works or place of business of such other person, firm or corporation for the purpose of interfering with or injuring any lawful business or enterprise: *Provided*, That nothing herein shall prevent any person from soliciting trade or business for a competitive business.

SEC. 3. It shall be unlawful to print or circulate any notice of boycott, boycott cards, stickers, dodgers or unfair lists, publishing or declaring that a boycott or ban exists or has existed or is contemplated against any person, firm or corporation doing a lawful business, or publishing the name of any judicial officer or other public official upon any black list, unfair list or other similar list because of any lawful act or decision of such official.

SEC. 4. It shall be unlawful to use force, threats or other means of intimidation to prevent any person from engaging in any lawful occupation at any place he or she sees fit.

SEC. 5. It shall be unlawful for any person, firm or corporation to maintain a black list or to notify any other firm or corporation that any person has been blacklisted by such person, firm or corporation, or to use any other similar means to prevent such persons from receiving employment. Any person, firm or corporation violating any provision of this act must, on conviction, pay a fine of not less than fifty (\$50) dollars, nor more than five hundred (\$500) dollars, or to be imprisoned not to exceed sixty days hard labor for the county.

Approved September 26, 1903.

ACT No. 405.—*Emigrant agents.*

SECTION 1. From and after the approval of this act no person shall carry on the business of an emigrant agent in this State with [without] having first obtained a license therefor from the State auditor.

SEC. 2. The terms "Emigrant Agent" as contemplated in this act, shall be construed to mean any person engaged in hiring laborers or soliciting emigrants in this State to be employed beyond the limits of the same.

SEC. 3. Any person shall be entitled to a license which shall be good for one year, upon payment into the State treasury for the use of the State of five hundred dollars in each county in which he operates or solicits emigrants for each year so engaged.

SEC. 4. Any person doing the business of an emigrant agent without having first obtained such license shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than five hundred dollars and not more than five thousand dollars or may be imprisoned in the county jail or sentenced to hard labor for the county for not less than four months nor more than one year for each and every offense within the discretion of the court.

Approved October 1, 1903.

ACT No. 480.—*Protection of employees as voters.*

SECTION 53. Any employer who attempts by coercion, intimidation, threats to discharge or to lessen the remuneration of an employee or to influence his vote in any election or who requires or demands an examination or inspection by himself or another of an employee's ballot, shall be guilty of a misdemeanor and upon conviction shall be fined not less than five hundred dollars.

SEC. 54. Any officer or agent of a corporation or other person with authority to discharge employees, who shall attempt by coercion, intimidation, threats to discharge or to lessen his remuneration any such employee to influence his vote in any election or who requires or demands an examination or inspection by himself or another of any employee's ballot shall be guilty of a misdemeanor and upon conviction shall be fined not less than five hundred dollars.

Approved October 9, 1903.



## ARIZONA.

## ACTS OF 1903.

Act No. 8.—*Hours of labor in mines.*

SECTION 1. The period of employment of workingmen in all underground mines or workings shall be eight hours per day, except in cases of emergency where life or property is in imminent [imminent] danger.

SEC. 2. Any person, body corporate, agent, manager or employer who shall violate any of the provisions of section 1 of this act shall be guilty of a misdemeanor, and on conviction therefor shall be fined in the sum of not less than one hundred dollars, nor more than three hundred dollars for each offense, the same to be collected as in other cases where fines are imposed.

Approved March 10th, 1903.

Act No. 34.—*Hours of labor of railroad employees—Number of brakemen.*

SECTION 1. No company operating a railroad in whole or in part within the Territory of Arizona shall require any conductor, engineer, fireman, brakeman, telegraph operator, or any employee who has worked in his respective capacity for sixteen consecutive hours, except in case of casualty, or actual necessity, to again go on duty, or perform any work until he has at least nine hours' rest.

SEC. 2. Any company which violates or permits to be violated any of the provisions of the preceding section or any officer or agent of such company who violates or permits to be violated any of the provisions of the preceding section, shall be punished by a fine of not less than \$50 nor more than \$300 for each and every violation thereof.

SEC. 3. It shall be unlawful for any such company referred to in section 1 of this act to allow any trains to be run on mountain divisions where the ruling grade is over ninety-five feet to the mile, unless there is a brakeman assigned to ever [every] 600 tons in such train while being handled on such grade.

For each violation of this section, penalty same as named in section 2.

Approved March 18th, 1903.

Act No. 58.—*Payment of wages in scrip.*

SECTION 1. All persons, firms, corporations and companies using coupons, script [scrip], punchouts, store orders or other evidences of indebtedness to pay their or its laborers or employees for labor, or otherwise, shall, if demanded, redeem the same in the hands of such laborer, employee, or bona fide holder, in lawful money of the United States: *Provided*, The same is presented and redemption demanded of such person, firm, company or corporation using same as aforesaid, at a regular pay day of such person, firm, company or corporation to laborers or employees or if presented and redemption demanded as aforesaid by such laborers, employees or bona fide holders at any time not less than thirty days from the issuance or delivery of such coupon, script [scrip], punchout, store order or other evidences of indebtedness to such employees, laborers or bona fide holder.

Such redemption to be at the face value of the said script [scrip], punchout, coupon, store order or other evidences of indebtedness.

*Provided, further*, Said face value shall be in cash, the same as its purchasing power in goods, wares and merchandise at the commissary company store, or other repository of such company store, [sic] firm, person or corporation aforesaid.

SEC. 2. Be it further enacted, that any employee, laborer or bona fide holder referred to in paragraph 1 of this act upon presentation and demand for redemption of such script [scrip], coupon, punchout, store order or other evidences of indebtedness aforesaid, and upon refusal of such person, firm, corporation or company to redeem the same in good and lawful money of the United States, may maintain in his, her, or their own name an action before any court of competent jurisdiction against such person, firm, corporation or company, using same as aforesaid, for the recovery of the value of such coupon, script [scrip], punchout, store order or other evidences of indebtedness, as defined in paragraph 1 of this act.

Approved March 19th, 1903.



## ARKANSAS.

## ACTS OF 1903.

Act No. 4.—*Labor Day.*

SECTION 1. The first Monday in September of each year is hereby declared a public holiday to be known and designated as "Labor Day."

Approved January 29, 1903.

Act No. 127.—*Employment of children.*

SECTION 1. No child under the age of twelve (12) years shall be employed in or about any factory or manufacturing establishment within this State, unless a widowed mother or totally disabled father is dependent upon the labor of such child, or in case a child is an orphan and has no other means of support. No child under the age of ten (10) years shall be so employed under any circumstances.

SEC. 2. It shall be unlawful for any factory or manufacturing establishment to hire or employ any child unless there is first provided and placed on file in the office of such employer an affidavit signed by the parent or guardian or person standing in parental relation thereto, certifying the age and date of birth of said child; any person knowingly furnishing a false certificate of the age of such child shall be deemed guilty of perjury, and upon conviction thereof, shall be punished as provided by law in all cases of perjury.

SEC. 3. No child under the age of fourteen (14) shall be employed at labor or detained in any factory or manufacturing establishment in this State between the hours of 7 p. m. and 6 a. m. or for more than sixty (60) hours in any one week or more than ten (10) hours in any one day.

SEC. 4. No child under the age of fourteen (14) shall be employed at labor in or about any factory or manufacturing establishment unless he or she can read and write his or her name and simple sentences in the English language.

SEC. 5. No child under the age of fourteen (14) years shall be employed at labor in or about any factory or establishment, unless such child attends school for at least twelve weeks of each year—six weeks of such schooling to be consecutive—the year to be counted from the last birthday of the child preceding such employment; and at the end of every year a certificate to the effect that the law has been complied with, signed by the teacher of the school or schools attended by the child during said year must be produced by the parent or person standing in parental relation to said child, and filed by the employer of said child. All such certificates shall be open to public inspection.

SEC. 6. Any person, persons, corporation or representative of such corporation who violates any of the provisions of this act, or who suffers or permits any child to be employed in violation of its provisions, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by a fine of not more than five hundred dollars (\$500).

Approved April 8, 1903.

Act No. 142.—*Employers to furnish names of employees to assessors, etc.*

SECTION 1. Hereafter any person, persons, partnership, company or corporation owning or operating any mill, mine, factory or any other manufacturing enterprise, shall be required to give the names of their agents, servants and employees to the tax assessors, sheriffs or tax collectors of the various counties when demanded in their official capacity.

SEC. 2. Any person, persons, partnership, company, corporations, or their agents, attorneys or managers, owning or operating any mill, mine, factory or other manufacturing enterprises, who shall violate section 1 of this act shall be guilty of a misdemeanor and fined in any sum not less than ten nor more than one hundred dollars.

Approved April 10, 1903.

Act No. 144.—*Hours of labor of railroad employees.*

SECTION 1. Any company owning or operating a railroad over thirty miles in length in whole or in part within this State shall not permit or require any conductor, engineer, fireman, brakeman or any trainman on any train, or any telegraph operator who has worked in his respective capacity for sixteen consecutive hours, to again be required to go on duty or perform any work until he has had at least eight hours rest, except



in cases of wrecks or washout: *Provided*, That at the expiration of the said sixteen hours continuous service, the engineer and trainmen on any train, being at a distance not exceeding twenty-five miles from any division terminal or destination point, shall be permitted, if they so elect, to run said train into said division terminal or destination point: *It being further provided*, That the additional service permitted under this section not be so construed as to relieve any railway corporation from liabilities incurred under section three (3) of this act: *And, provided further*, That the provision of this act shall not apply to passenger trains.

SEC. 2. Any railroad company or corporation knowingly violating any of the provisions of this act shall be liable to a penalty of not less than one hundred dollars (\$100) nor more than two hundred dollars (\$200) for the first offense; for any subsequent offense, of not less than two hundred dollars (\$200) nor more than three hundred dollars (\$300), which shall be recovered in a civil action in the name of the State.

SEC. 3. In addition to the penalty prescribed herein any corporation violating the provisions of this act shall not be permitted to interpose the defense of contributory negligence in the event of action being brought to recover for damages resulting from any accident which shall occur and by which injury shall be inflicted on any employee who may be detained in service more than said sixteen hours, notwithstanding negligence of said injured employee may have caused his own injury or death; nor shall said defense of contributory negligence be interposed if the said injury result in death of said employee and the action is brought for the benefit of his next of kin.

Approved April 14, 1903.

ACT No. 147.—*Mechanics' liens—Personal property.*

SECTION 1. Blacksmiths and wheelwrights who perform work or labor for any person, if unpaid for the same, shall have an absolute lien on the product of their labor and upon all wagons, carriages, farm implements and other articles repaired by them, for such work or labor and for all materials furnished by them and used in such product or repairs.

SEC. 2. Any person having a lien under this act and desiring to avail himself of its provisions, shall within thirty days after such work or labor is done or performed, or materials furnished, file with the clerk of the circuit court of the county in which the debtor resides, a just and true account of the demand due, or becoming due after allowing all credits, and containing a description of the property to be charged with said lien, verified by affidavit.

SEC. 3. The clerk of the circuit court shall file such account and make an abstract thereof in the book of minutes of mortgages and deeds of trust of personal property, for which the clerk shall charge a fee of twenty-five cents, to be paid by the person filing such account.

SEC. 4. Liens accruing under this act may be enforced at any time within four months after such accounts are filed by suits as provided for the enforcement of laborers' liens in subdivision three of chapter ninety-nine of Sandels & Hill's Digest.

Approved April 15, 1903.

ACT No. 155.—*Payment of wages—Railroad employees to be paid when discharged.*

SECTION 1. Section 6243 of Sandels & Hill's Digest [shall] be amended so as to read as follows:

Section 6243. Whenever any railroad company or corporation or any receiver operating any railroad engaged in the business of operating or constructing any railroad or railroad bridge shall discharge, with or without cause, or refuse to further employ any servant or employee thereof, the unpaid wages of any such servant or employee then earned at the contract rate, without abatement or deduction, shall be and become due and payable on the day of such discharge or refusal to longer employ; and such servant or employee may request of his foreman or the keeper of his time to have the money due him, or a valid check therefor, sent to any station where a regular agent is kept; and if the money aforesaid, or a valid check therefor, does not reach such station within seven days from the date it is so requested, then as a penalty for such nonpayment the wages of such servant or employee shall continue from the date of the discharge or refusal to further employ, at the same rate until paid: *Provided*, Such wages shall not continue more than sixty days, unless an action therefor shall be commenced within that time.

(Became a law without the governor's approval, April 21, 1903.)



## COLORADO.

## ACTS OF 1903.

CHAPTER 70.—*Wages a preferred claim—In assignments, etc.*

SECTION 1. Hereafter, when the business of any person, corporation, company or firm shall be suspended by the action of creditors, or be put into the hands of a receiver or trustee, then in all such cases the debts owing to laborers, servants or employees, which have occurred by reason of their labor, or employment, shall be considered and treated as preferred claims, and such laborers or employees shall be preferred creditors, and shall first be paid in full, and if there be not sufficient to pay them in full the same shall be paid from the proceeds of the sale of the property seized: *Provided*, That any person interested may contest any such claim, or claims, or part thereof, by filing exceptions thereto, supported by affidavit, with the officer having the custody of such property, and thereupon the claimant shall be required to reduce his or her claim to judgment before some court having jurisdiction thereof before any part thereof shall be paid.

SEC. 2. Any laborer or servant desiring to enforce his or her claim for wages under this act, shall present a statement under oath showing the amount due, the kind of work for which such wages are due, and, when performed, to the officer, person or court charged with such property, within twenty days after the seizure thereof on any execution or writ of attachment, or within sixty days after same may have been placed in the hands of any receiver or trustee, and thereupon it shall be the duty of the person or court having or receiving such statement to pay the amount of such claim or claims to the person or persons entitled thereto.

SEC. 3. No claim under this act shall be paid until after the expiration of the time in which to present such claim. And if the funds realized from the sale of the property seized be insufficient to pay the total claims presented, then such funds shall be prorated on such claims: *Provided, however*, That the provisions [provisions] of the act shall not be construed to extend to creditors who held a duly recorded mortgage upon the property attached, which was given for a debt actually existing from such mortgage before the labor was performed.

Approved April 10, 1903.

CHAPTER 132.—*Exemption of wages from execution.*

SECTION 1. Section 1 of an act entitled "An act to amend an act entitled 'An act to exempt certain wages and earnings of debtors from levy and attachment for debt,' and acts amendatory thereof, approved March 28, 1885," approved March 2, 1894, is hereby amended so as to read as follows:

Section 1. There shall be exempt from levy under execution or attachment or garnishment, sixty per cent of the amount due for wages or earnings of any debtor at the time such levy is made under execution, attachment or garnishment of the same: *Provided*, Such debtor be, at the time of such levy under execution, attachment or garnishment, the head of a family or the wife of the head of a family, and such family resides in this State and is dependent, in whole or in part, upon such earnings for support: *Provided, further*, That when such wages or earnings do not exceed the sum of five dollars (\$5) per week, at the time such levy is made under execution, attachment or garnishment, then, all such wages or earnings shall be exempt.

Approved March 9, 1903.

CHAPTER 136.—*Arbitration of labor disputes.*

SECTION 1. Section 3 of an act entitled "An act creating a State and local board of arbitration for the adjustment of differences arising between employers and employees, and defining the powers and duties thereof, and making an appropriation therefor," approved March 31, 1897, is hereby amended so as to read as follows:

Section 3. The third member of said board shall be secretary thereof, whose duty it shall be, in addition to his duties as a member of said board, to keep a full and faithful record of the proceedings of the board and perform such clerical work as may be necessary for a concise statement of all official business that may be transacted. He shall be the custodian of all documents and testimony of an official character relating to the business of the board; and shall, also, have, under direction of a majority of the board, power to issue subpoenas, and to administer oaths to witnesses cited before the board, to call for and examine books, papers and documents necessary for exami-



nation in the adjustment of labor differences. If any person, having been served with a subpoena or other process issued by such board, shall willfully fail or refuse to obey the same, or to answer such questions as may be propounded touching the subject-matter of the inquiry or investigation, it shall be the duty of the district court or the county court of the county in which the hearing is being conducted, or of the judge thereof if in vacation, upon application by such board, duly attested by the chairman and secretary thereof, to issue an attachment for such witness and compel him or her to appear before such board and give his or her testimony, or to produce such books and papers as may be lawfully required by said board; and said court or judge thereof shall have power to punish for contempt, as in other cases of refusal to obey the process and [orders] of such court.

Sec. 2. Immediately after section 6 of said act there [shall] be inserted and added in said act a new paragraph, under the caption of section 6A, which shall be and read as follows:

“Said decision shall be binding upon the parties who join in said application for one year.”

Sec. 3. Immediately after section 7, of said act, there [shall] be inserted and added in said act a new paragraph, under the caption of section 7A, which shall be and read as follows:

“In the event of a failure to abide by the decision of said board in any case in which both employer and employees shall have joined in the application, any person or persons aggrieved thereby may file with the clerk of the district court or the county court of the county in which the offending party resides, or in the case of an employer, in the county in which the place of employment is located, a duly authenticated copy of such decision, accompanied by a verified petition reciting the fact that such decision has not been complied with, and stating by whom, and in what respect it has been disregarded.

Thereupon the district court, or the county court (as the case may be), or the judge thereof, if in vacation, shall grant a rule against the party or parties so charged to show cause within ten days why such decision has not been complied with, which shall be served by the sheriff as other process. Upon return made to the rule, the court or the judge thereof, if in vacation, shall hear and determine the questions presented, and to secure a compliance with such decision, may punish the offending party or parties for contempt, but such punishment shall not extend to imprisonment, except in cases of willful and contumacious disobedience.

Approved April 11, 1903.

#### CHAPTER 137.—*Employment of labor—Age not ground for discharge.*

SECTION 1. No person, persons, firm, association or corporation, carrying on or conducting, within this State, any business requiring the employment of labor, shall discharge any individual between the ages of eighteen and sixty years, solely and only upon the ground of age: *Provided, however,* That such individual is well versed in the line of business carried on by such person, persons, firm, association or corporation, and is qualified physically, mentally, and by training and experience, to satisfactorily perform and does satisfactorily perform the labor assigned to him, or for which he applies.

SEC. 2. Any person, persons, firm, association or corporation, or officer, agent or representative of such corporation, who violates, or permits to be violated, any of the provisions of the preceding section, upon conviction thereof, shall be fined not less than one-hundred dollars, nor more than two hundred and fifty dollars, for each and every violation of this act.

Approved April 10, 1903.

#### CHAPTER 138.—*Employment of women and children.*

SECTION 1. It shall be unlawful for any person, agent, firm, company, copartnership, or corporation to require any child, either boy or girl, of sixteen years of age or less, to labor or work in any mill, factory, manufacturing establishment, shop or store, or in or about coal or other mines, or any other occupation not herein enumerated which may be deemed unhealthful or dangerous, for a greater number than eight hours in the twenty-four hour day, except in cases where life or property is in imminent danger, or in the week before and following Christmas day: *Provided,* That any child between the age of fourteen and sixteen years coming within the provisions of this act may be exempted from the provisions thereof, if in the opinion of the judge of the county court of the county in which said child resides it would be for its best interests to be so exempted. Application may be made in writing to any



county judge by any such child, its parent, or guardian, to be granted such exemption, when it shall be the duty of such judge to hear the same and inquire particularly into the nature of the employment sought. No fees shall be charged or collected in any such case.

SEC. 2. All paper mills, cotton mills and factories where wearing apparel for men or women is made, ore reduction mills or smelters, factories, shops of all kinds and stores may be held to be unhealthful and dangerous occupations within the meaning of this act at the discretion of the court.

SEC. 3. No woman of sixteen years of age or more shall be required to work or labor for a greater number than eight hours in the twenty-four hour day, in any mill, factory, manufacturing establishment, shop, or store for any person, agent, firm, company, copartnership or corporation, where such labor, work or occupation, by its nature, requires the woman to stand or be upon her feet, in order to satisfactorily perform her labors, work or duty in such occupation and employment.

SEC. 4. Any person who shall take, receive, hire or employ any child under the age of fourteen years in any underground works or mine, or in any smelter, mill or factory, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not less than fifty dollars, nor more than five hundred dollars, and shall be imprisoned in the county jail not less than thirty days, nor more than three months.

SEC. 5. Any person, agent, firm, company, copartnership or corporation which shall violate any of the provisions of this act or shall require a greater number of hours of work or labor than herein specified of any child, either boy or girl, of sixteen years of age or less, in any employment or occupation herein enumerated, or any other which shall be deemed by the courts as unhealthful, shall be deemed guilty of a misdemeanor, and shall be fined in a sum of not less than one hundred dollars (\$100), or more than five hundred dollars (\$500), or be imprisoned in the county jail for not less than two, or more than four months, or by both such fine and imprisonment, in the discretion of the court, for each offense.

SEC. 6. All district attorneys shall be required to make prosecutions for all violations of this act, upon the sworn complaint of any reputable citizen that this act is being violated by any person, firm, company, copartnership or corporation.

Approved April 11, 1903.

#### CHAPTER 144.—*Mine regulations.*

SECTION 1. Explosives must be stored in a magazine provided for that purpose alone; said magazine to be placed far enough from the working shaft, tunnel or incline to insure the same remaining intact in the event the entire stock of explosives in said magazine be exploded; all explosives in excess of the amount required for a shift's work must be kept in said magazine; no powder or other explosive be stored in underground workings where men are employed; each mine shall provide and employ a suitable device for thawing or warming powder and keep the same in condition for use; oils or other combustible substances shall not be kept or stored in the same magazine with explosives.

SEC. 2. The commissioner of mines of the State of Colorado shall have authority to regulate and limit the amount of nitro powder stored or kept in general supply stores in mining camps or mining towns where there is no municipal law governing the storage of same.

SEC. 3. No person shall, whether working for himself or in the employ of any person, company or corporation, while loading or charging a hole with nitroglycerin powder or other explosives, use or employ any steel or iron tamping bar; nor shall any mine manager, superintendent, foreman or shift boss, or other person having the management or direction of mine labor, allow or permit the use of such steel, iron or other metal [metal] tamping bar by employees under his management or direction.

SEC. 4. All old timber removed shall as soon as practicable be taken from the mine and shall not be piled up and permitted to decay underground.

SEC. 5. No person addicted to the use of intoxicating liquors or under eighteen years of age shall be employed as hoisting engineer.

SEC. 6. All hoisting machinery, using steam, electricity, air or hydraulic motive power, for the purpose of hoisting from or lowering into metalliferous mines employees and material, shall be equipped with an indicator, said indicator to be so placed near to and in clear view or hearing of the engineer.

SEC. 7. There shall be established by the commissioner of mines of the State of Colorado a uniform code of signals, embracing that most generally in use in metalliferous mines, which shall be adopted in all mines using hoisting machinery.

The code of signals shall be securely posted, in clear and legible form, in the engine room, at the collar of the shaft and at each level or station. In all shafts equipped with cages, such shafts and cages shall be fully equipped with a system of electric signals from cage and stations to engineer wherever possible.



SEC. 8. All mines having but one exit, and the same covered with a building containing the mechanical plant, furnace room and blacksmith shop, shall have fire protection, water if possible, and in mines where water is not available, chemical fire extinguishers or hand grenades shall be kept in convenient places for immediate use.

SEC. 9. All persons shall be prohibited from riding upon any cage, skip or bucket loaded with tools, timber, powder or other material, except for the purpose of assisting in passing same through shaft or incline, and then only upon special signal.

SEC. 10. All persons giving or causing to be given false signals, or riding upon any cage, skip or bucket upon signals that designate to the engineer that no employees are aboard, shall be deemed guilty of a misdemeanor.

SEC. 11. All shafts more than two hundred (200) feet in depth, equipped with hoisting machinery, shall be divided into at least two (2) compartments, and one compartment to be partitioned off and set aside for a ladderway. The ladder shall be made sufficiently strong for the purpose demanded, and in vertical shafts, landings shall be constructed not more than twenty (20) feet apart, said landings to be closely covered, except an opening large enough to permit the passage of a man; said ladders shall be inclined at the most convenient angle which the space allows, and shall be firmly fastened, and kept in good repair. In all incline shafts the landings shall be put in as above described, but a straight ladder on the incline of the shaft.

Ladders in upraises and winzes shall be likewise provided and kept in repair, but where winzes connecting levels are used, only for ventilation and exit, only one such winze on each level need be equipped.

SEC. 12. Hereafter shafts equipped with buildings and machinery, with only the working shaft for exit, shall be divided into at least two (2) compartments, one of which shall be tightly partitioned off and used as a ladderway as hereinbefore provided for; said ladderway shall be securely bulkheaded at a point at least twenty-five feet below the collar of the shaft, and below this bulkhead a drift shall be run to the surface, if location of shaft is upon a side hill; if location of shaft is upon a level, the drift shall be run to a safe distance without the walls of the building and from there upraised to the surface. Said ladderway and landings shall be kept at all times in good repair and afford easy mode of escape in event of fire.

SEC. 13. Hereafter all tunnels or adit levels at a safe distance from mouth of same shall connect with the surface, and be provided with safe and suitable ladders, and thus afford a means of exit in case of fire destroying the buildings over the mouth of tunnel or adit level.

SEC. 14. Employees engaged in sinking shaft or incline, shall at all times be provided with chain or other kind of ladder so arranged as to insure safe means of exit.

SEC. 15. In all shafts, hereafter constructed, collars of same shall be protected in such manner that persons or foreign objects can not fall into the shaft. In all shafts equipped with cages, safety clutches shall be used. In shafts equipped with buckets, shaft doors must be constructed which will prevent any material falling into shaft from dumping.

SEC. 16. All stations or levels shall, when practicable, have a passageway around the working shaft, so that crossing over the working compartment can be avoided. At all shaft stations a guard rail or rails shall be provided and kept in place across the shaft, in front of the level, so arranged that it will prevent persons from walking, falling or pushing a truck, car or other conveyance into the shaft. All winzes and mill holes extending from one level to another shall be covered or surrounded with guard rails, to prevent persons from stepping or falling into the same.

SEC. 17. When any shaft is sunk on a vein, ore shoot [chute] or body, a pillar of ground shall be left standing on each side of the shaft of sufficient dimensions to protect and secure the same, and in no case shall stopping [stoping] be permitted up to or within such close proximity to the shaft as to render the same insecure, until such time as the mine is to be abandoned and said pillar withdrawn.

SEC. 19. Any person or persons removing or destroying any covering or fencing placed around or over any shaft, pit or other excavation, as hereinbefore provided, shall be deemed guilty of a misdemeanor and upon conviction thereof in any court of competent jurisdiction shall be fined in a sum of not less than fifty dollars (\$50) nor more than three hundred dollars (\$300) or imprisonment in the county jail for six months, or by both fine and imprisonment.

SEC. 20. Any owner, person or persons operating any metalliferous mine, mill or metallurgical plant and employing two or more men shall report to the bureau of mines and state when work is commenced and when stopped, and mines working continuously shall report on or before November 1 of each year, together with the names of the owners and managers or lessee in charge of said work, together with the



post-office address; the name of the claim or claims to be operated, the name of the county and mining district, together with the number of men employed, directly or indirectly, the same being classified into miners, trammers, timbermen, ore sorters, millmen [,] teamsters, etc. The necessary blanks to carry out the provisions of this section shall be furnished upon application by the commissioner of mines.

SEC. 21. Any owner, lessee, manager, superintendent or foreman in charge of any metalliferous mine, mill or metallurgical plant who shall willfully misrepresent or withhold facts or information from any inspector or other officer of the bureau of mines, regarding the mine, such as length of time timbers have been in place, or making any misrepresentations tending to show safety when the reverse is true, shall be deemed guilty of a misdemeanor, and upon conviction thereof in any court of competent jurisdiction, shall be fined in any sum not less than one hundred dollars, nor more than three hundred dollars.

SEC. 22. Strangers or visitors shall not be allowed underground in any mine, unless accompanied by the owner, official or employee deputized to accompany them.

SEC. 23. Notice of the maximum number of men permitted to ride upon or in the cage, skip or bucket, at one time, shall be posted at the collar of the shaft and each level. All men or employees riding upon or in an overloaded cage, skip or bucket as provided in notice so posted, shall be guilty of a misdemeanor, and upon conviction in a competent court, shall be fined not less than five dollars nor more than fifty dollars for each and every offense.

SEC. 24. Any owner, agent, manager or lessee, whether individual, partnership or corporation, having charge or operating any metalliferous mine, mill or metallurgical plant, whenever loss of life or accident serious enough in character to cause the injured party to stop work for two consecutive days, and connected with the workings of such metalliferous mine, mill or metallurgical plant, shall occur, shall give notice immediately and report all the facts thereof to the commissioner of mines. The refusal or failure of the said owner, agent, manager or lessee, to so report within a reasonable length of time shall be deemed a misdemeanor and shall upon conviction be subject to a fine of not less than fifty dollars (\$50) nor more than three hundred dollars (\$300), or be imprisoned not less than one or more than three months, or by both such fine and imprisonment. The commissioner of mines, upon receipt of notice of accidents, shall investigate the causes and make or cause to be made a report, which report shall be filed [filed] in his office for future reference.

SEC. 25. The commissioner of mines of the State of Colorado, inspectors, or either thereof, shall have power to make such examination or inquiry as is deemed necessary to ascertain whether the provisions of this act are complied with; to examine into and make inquiry respecting the condition of any mine, mill or metallurgical plant, or part thereof, and all matters or things connected with or relating to the safety of the persons employed in or about the same; to examine into and make inquiry respecting the condition of the machinery or mechanical device, and, if deemed necessary, have same tested; to appear at all coroners' inquests held, respecting accidents, and if deemed necessary, call, examine and cross-examine witnesses; to exercise such other powers as are necessary for carrying this act into effect.

SEC. 26. Any owner, agent, manager or lessee, whether individual, partnership or corporation, operating a metalliferous mine, mill or metallurgical plant in this State, who fails to comply with the provisions herein set forth, or either or any thereof, shall be deemed guilty of a misdemeanor, and when not otherwise provided, shall be liable to a fine of not less than twenty-five dollars (\$25) nor more than three hundred dollars (\$300), for each provision not complied with, and each day after conviction of failure to comply with any provision hereof, shall be deemed a separate offense and punished accordingly.

The district attorney of the district in which such mine, mill or metallurgical plant is situated, is hereby empowered and directed to bring an action in the name of the people of the State of Colorado against such owner, agent, manager or lessee, whether individual, partnership or corporation, operating such metalliferous mine, mill or metallurgical plant when he is not complying with the provisions of this act, or any part thereof, or for the violation of any rule made in conformity with this act by the commissioner of mines of the State of Colorado. Such penalty when recovered shall be turned over by such district attorney to the treasurer of the State of Colorado for the benefit of the general school fund of the State of Colorado.

SEC. 27. Justices of the peace in their respective counties, shall have jurisdiction in prosecutions for the violation of this act, subject to the right of appeal as now provided for in cases of assault and battery.

Approved April 10, 1903.



CHAPTER 145.—*Mine regulations—Inspectors of metalliferous mines.*

SECTION 1. Section 3 of said act [Chapter 119, session laws of 1899,] is hereby amended to read as follows:

SEC. 3. The commissioner of mines shall divide the State into three metalliferous mining districts and shall, with the consent of the governor, appoint three (3) inspectors of practical experience in mining, citizens of the United States and legal voters of the State of Colorado, and having had not less than seven (7) years' practical experience in mining in the State of Colorado, who shall hold their office for the term of two (2) years. Immediately after such appointment of said inspectors the said commissioner of mines shall assign an inspector to each of said districts and said inspector so assigned shall maintain a branch office in one county of his district wherein extensive mining is carried on, and the said commissioner of mines shall have authority to require that said inspector shall during his terms of office, or such part thereof as he may determine, remain in the district to which he is appointed, wherein extensive mining is carried on, and whose additional duties shall be as hereinafter specified, and he shall appoint a clerk who must have a general knowledge of mineralogy, and shall act as assistant curator for the State mineral collection; and before entering upon the discharge of their duties shall subscribe to the oath required by the constitution, and each give bond to the State in the sum of \$5,000, to be approved by the governor, conditioned upon the faithful performance of their duties, respectively; said bonds shall, together with the commissioner's bond, be deposited with the secretary of state. The commissioner of mines may appoint a stenographer, who shall act as assistant clerk, and such other competent assistants as he may deem necessary for the carrying out of the object of this act; provided appropriation be made therefor, and shall have power, with the consent of the governor, at any time, to remove the inspectors, clerks or other assistants for incompetency, neglect of duty or abuse of the privileges of his office.

Approved April 11, 1903.

## CONNECTICUT. (a)

## ACTS OF 1903.

CHAPTER 130.—*Examination and licensing of barbers.*

SECTION 1. The board of examiners appointed under section 4671 of the general statutes shall have the power to adopt such rules and regulations as they may deem necessary to procure the proper sterilizing of tools and implements used by barbers in the practice of their occupation in this State, and for any other purpose that they may deem necessary to improve the sanitary condition of barber shops and their surroundings. Said rules shall be submitted to the State board of health and, upon being approved by said board, shall be in full force and effect. A printed copy of every such rule shall be mailed to every licensed barber in this State.

SEC. 2. The members of the examining board shall have full power to enter in business hours and inspect all barber shops in the State regarding their sanitary and cleanly condition. If said examining board shall find a shop that is unsanitary, they shall report the name of the proprietor and the street and number of the place of business to the town, city, or borough health officer of the place in which it is located, who shall at once order the shop put in a sanitary condition or closed.

SEC. 3. All licenses to barbers that have been issued by the board of examiners in this State shall expire on the first day of October, 1903, and each year thereafter. No person shall carry on the occupation of a barber in this State after October 1, 1903, until he shall have made application to the board of examiners for the renewal of the license which he holds. Said application for the renewal of a barber's license shall be in writing, addressed to the board of examiners, and signed by the party applying for such renewal. The board of examiners shall not renew any barber's license unless the application for renewal be received by said board within thirty days after the expiration of such license.

SEC. 4. Said board of examiners shall, on the first day of October, 1903, and annually thereafter, issue to every licensed barber in this State, presenting an application for renewal of his license bearing the date of his insignia card and accompanied by a renewal fee of one dollar, a receipt stating the fact of such payment, which receipt shall be a license to follow said occupation for one year from the date of its issue.

SEC. 5. Any licensed barber who shall practice the occupation of a barber in this State after the expiration of his license, without renewing the same, or who shall fail to comply with an order, regulation, or rule that may be adopted by the board of

(a) For other legislation of the session of 1903, see Bulletin 50, pp. 209, 210.



examiners and approved by the State board of health, shall forfeit his right to a license and be compelled to pay a fine of not more than fifty dollars for said violation.

Approved June 3, 1903.

## FLORIDA.

### ACTS OF 1903.

#### CHAPTER 5161.—*Seamen—Employers' advances—Violation of contract of employment.*

SECTION 1. Whoever enters into a written agreement with any master or owner of a vessel to perform certain services upon said vessel as seaman or sponge fisherman for a contemplated voyage and receives or accepts any money or goods, wares or merchandise, as advances or bounty for the performance of said services, and shall willfully and without just cause refuse to perform said services or to go on said vessel at the time of the sailing of the same, shall be guilty of a misdemeanor, and shall, upon conviction, be punished by a fine not to exceed five hundred dollars, or be imprisoned in the county jail for a period not to exceed twelve months.

(Became a law without the approval of the governor.)

#### CHAPTER 5164.—*Sunday labor—Newspapers.*

SECTION 1. Nothing contained in the laws of Florida shall be so construed as to prohibit the preparation or printing between the hours of midnight Saturday and six in the morning, Sunday, of any newspaper intended to be circulated and sold on Sunday, or to prohibit the circulation and sale on Sunday of same, or to prohibit the circulation and sale on Sunday of any newspaper theretofore printed.

Approved May 15, 1903.

#### CHAPTER 5192.—*Emigrant agents.*

SECTION 1. All persons, whether acting as individuals, or as emigration agents, or the employer or employee of such agents, who shall seek to influence and by such persuasions cause the removal of any inhabitant from this State, or who shall seek to entice away from this State labor in this State by any representations whatsoever, shall be considered emigration agents, and as such shall be subjected to a license tax of five hundred dollars (\$500), which sum shall be collected in each county where any such business is carried on.

SEC. 2. In case any emigrant agent or representative of such agent, or other person, attempts to carry on any business in any county of this State without first having paid the license tax as required in section 1 of this act, then such person shall be liable to arrest and upon trial and conviction shall be fined not less than one hundred dollars nor more than five hundred dollars, or to a sentence in the county jail of not less than sixty days, nor more than six months, or both by such fine and imprisonment.

Approved June 1, 1903.

#### CHAPTER 5212.—*Right of action for personal injuries.*

SECTION 1. Whoever through culpable negligence, or a reckless disregard for the safety of others, inflicts any personal injury or injuries upon another, not resulting in death, shall be punished by imprisonment in the county jail not exceeding one year or by fine not exceeding one thousand dollars, or by both such fine and imprisonment.

(Became a law without the approval of the governor.)

## IDAHO.

### ACTS OF 1903.

#### *Fire escapes on factories, etc.*

(Page 148.)

SECTION 1. It is hereby made the duty of every person, firm or corporation, or his or its agents, officers or trustees owning or having the management or control of any \* \* \* factory or other structure over two stories in height to provide and furnish such building with safe and suitable metallic, iron or fireproof ladders of sufficient strength and permanently and securely attach the same to the outside or outer walls of such buildings in such manner and in such position as to be adjacent to the windows and convenient and easy of access to the occupants of such buildings in case of fire.



SEC. 2. Such metallic, iron or fireproof ladders must connect with each floor above the first, and be well fastened and secure and of sufficient strength and extent from the first story to the upper stories of such building or to the cornice thereof.

SEC. 4. Any person, firm or corporation, or his or its agents, officers or trustees, who shall fail to comply with the provisions of this act shall be guilty of a misdemeanor, and on conviction thereof shall be punishable by imprisonment in the county jail for not less than three nor more than six months, or by a fine of not less than two hundred dollars (\$200), nor more than three hundred dollars (\$300), or by both such fine and imprisonment.

Approved the 3rd day of March, 1903.

## KANSAS.

### ACTS OF 1903.

#### CHAPTER 70.—*Examination and licensing of barbers.*

SECTION 1. It shall be unlawful for any person to follow the occupation of a barber in this State, unless he shall have first obtained a certificate of registration as provided in this act: *Provided, however,* That nothing in this act contained shall apply to or affect any person who is now actually engaged in such occupation, except as hereinafter provided: *Provided,* That the provisions of this law shall not apply to barbers in any city, town or village containing less than three thousand inhabitants.

SEC. 2. A board of examiners, to consist of three persons, citizens of this State for at least three years prior to their appointment, is hereby created to carry out the purposes and to enforce the provisions of this act. Such board shall be appointed by the governor: *Provided,* That all barbers must have had at least a practice of at least five years at the said occupation prior to their appointment. Each member so recommended shall appear before the State board of health, whose duty it shall be to determine whether or not such member possesses sufficient knowledge of inoculable contagious and inoculations diseases to enable such member to pass judiciously upon the qualifications of others in the occupation of barber. If said board of health shall reject an appointee, then the governor shall appoint some one else in place of the person rejected, such appointment to be made from the same class of persons from which the appointment was made. If, on the other hand, the appointment be confirmed by the board, said board shall issue a certificate to that effect, and all appointments made under the provisions of this act shall date from the confirmation thereof by said State board. Each member of said board shall serve for a term of three years and until his successor is appointed and qualified, except in the case of the first board, whose members shall serve one, two and three years, respectively, as specified in their appointment. Said board shall, with the approval of the State board of health, prescribe such sanitary rules as it may deem necessary, with particular reference to the precautions necessary to be employed to prevent the creating and spreading of infectious or contagious diseases. A copy of such rules shall be furnished each person to whom a certificate of registration is granted. Each member of said board shall, before entering upon the discharge of his duties, give a bond in the sum of two thousand dollars, with a surety or sureties to be approved by the secretary of state, conditioned for the faithful performance of his duties, and shall take the oath provided by law for public officers. Vacancies upon said board caused by death, resignation or expiration from any cause of the term of any member thereof shall be filled by appointment from the same class of persons to which the deceased or retiring member belonged.

SEC. 3. Said board shall elect a president, secretary, and treasurer, shall have its headquarters at such place in the State as the board may determine, shall have a common seal, and the secretary and president shall have the power to administer oaths. A majority of said board may, in meeting duly assembled, perform the duties and exercise the powers devolving upon said board under the provisions of this act.

SEC. 4. Each member of said board shall receive a compensation of three dollars per day for his services, and also railroad fare and such other traveling expenses as may be necessary in the proper discharge of his duties, and shall be paid out of any money in the hands of the treasurer of the said board. Said board shall also be allowed for such other expenditures and outlays, payable out of the moneys in the hands of its treasurer, as shall be reasonable and proper for the discharge of their duties and to carry out the provisions of this act.

SEC. 5. Said board shall report to the auditor of this State at each of its regular meetings a full statement of the receipts and disbursements of the board during the preceding two years, a full statement of its doings and proceedings, and such recom-



mendations as it may deem proper looking to the better carrying out of the intent and purpose of this act. Any money in the hands of the treasurer of said board at the time of making such report in excess of two hundred and fifty dollars shall be paid over to the State treasurer for the maintenance of the public schools of this State.

SEC. 6. Such board shall hold public examinations at least four times in each year, at such times and places as it may deem advisable; notice of such meeting to be given by publications thereof at least ten days prior to such meetings in at least two newspapers published in this State, in the locality of such proposed meeting.

SEC. 7. Every person now engaged in the occupation of barber in this State shall, within ninety days after the approval of this act, file with the secretary of said board an affidavit setting forth his name, residence, and the length of time during which and the place where he has practiced such occupation, and shall pay to the treasurer of said board one dollar, and a certificate of registration entitling him to practice the said occupation for the fiscal year ending January 31, 1904, thereupon shall be issued to him; and the holders of such certificates shall, within thirty days after the expiration of their respective certificate, make application for the renewal of the same, stating the number of expiring certificates, and shall in each case pay to the treasurer of said board the sum of one dollar therefor. For any and every license or certificate given or issued by the board a fee of one dollar shall be paid by the person receiving the same.

SEC. 8. Any person not following the occupation of a barber at the time this act goes into operation, desiring to obtain a qualified certificate of the said occupation in this State, shall make application to said board therefor, and shall pay to the treasurer of said board an examination fee of five dollars, and shall present himself at the next regular meeting of the board for the examination of applicants; whereupon said board shall proceed to examine such person, and, being satisfied that he is above the age of nineteen years, of good moral character, free from contagious or infectious diseases, has either (a) studied the trade for two years as an apprentice under a qualified and practicing barber, or (b) studied the trade for at least two years in a properly appointed and conducted barber school or college under the instructions of a qualified barber, or (c) practiced the trade in another State for at least two years, and is possessed of the requisite skill in said trade to properly perform all the duties thereof, including his ability in the preparation of the tools, shaving, hair-cutting, and all the duties and services incident thereto, and is possessed of sufficient knowledge concerning the common diseases of the face and skin to avoid the aggravation and spreading thereof in the practice of said trade, shall enter his name in the register hereafter provided for, and shall issue to him a certificate of registration authorizing him to practice said trade in this State: *Provided*, That whenever it appears that applicant has acquired his knowledge of said trade in a barber school or college, the board shall be judges of whether said barber school or college is properly appointed and conducted and under proper instructions to give sufficient training in said trade. All persons making such application for examination under the provisions of this act shall be allowed to practice the occupation of barbering until the meeting for the next regular examination by the said board, and no longer, and the secretary shall give him a permit to do so: *Provided, however*, That such time may be extended by the board for good cause shown.

SEC. 9. Nothing in this act shall prohibit any person from serving as an apprentice in said trade under license issued by the board, under a barber authorized to practice the same under this act, nor from serving as a student in any school or college for the teaching of said trade, under the instructions of a qualified barber: *Provided*, That in no barber shop shall there be more than one apprentice to two barbers authorized under this act to practice said occupation, but all barber shops having one chair shall be entitled to one apprentice: *And provided*, That all barber schools or colleges shall keep prominently displayed a sign, "barber college" or "barber school," and no other sign or signs: *Provided*, That all barbers or barber schools or colleges who shall take an apprentice or student shall file immediately with said board the name and age of such apprentice or student, and the said board shall cause the same to be entered in a register kept for that purpose.

SEC. 10. Said board shall furnish to each person to whom a certificate of registration is issued a card or certificate, in such form as it shall adopt, bearing the seal of the board and the signature of its president and secretary, certifying that the holder thereof is entitled to practice the occupation of barber in this State, and it shall be the duty of the holder of such card or insignia to post the same in a conspicuous place in front of his working chair, where it may be readily seen by all persons whom he may serve.

SEC. 11. Said board shall keep a register, in which shall be entered the names of all persons to whom certificates are issued and to whom permits for serving appren-



ticeship or as students are granted under this act, and said register shall at all times be open to public inspection.

SEC. 12. Said board shall have power to revoke any certificate of registration granted by it under this act for (a) conviction of crime, (b) habitual drunkenness, (c) gross incompetency, (d) failure or refusal to properly provide or guard against contagious or infectious disease or the spreading thereof in the practice of the occupation aforesaid, or (e) violation of the rules of the board mentioned in section 2 of this act: *Provided*, That before any certificate shall be so revoked, the holder thereof shall have notice in writing of the charge or charges against him, and shall at a day specified in said notice, at least five days after the service thereof, be given a public hearing on said charges, and full opportunity to produce testimony in his behalf and to confront the witnesses against him. Any person whose certificate has been so revoked may, after the expiration of ninety days, apply to have the same regranted to him, upon a satisfactory showing that the disqualification has ceased.

SEC. 13. Any person who is engaged in the occupation in shaving the beard or cutting or dressing the hair for the general public shall be construed as practicing the occupation of barber, and the so said barber or barbers shall be required to fulfill all requirements of this act.

SEC. 14. Any person practicing the occupation of barber without having obtained a certificate of registration as provided in this act, or knowingly employing a barber who has not such certificate, or falsely pretending to be qualified to practice as barber or instructor or teacher of said occupation under this act, or failing to keep the certificate or card mentioned in section 10 of this act properly displayed, or failing to comply with such sanitary rules as the board in conjunction with the State board of health prescribes, or for the violation of any of the provisions of this act, shall be deemed guilty of a misdemeanor, and the board shall proceed against all such persons, and upon conviction thereof they shall be punished by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail not less than ten days or more than ninety days. Prosecutions under this act shall be begun and carried on in the same manner as other prosecutions for misdemeanors in this State.

Approved February 27, 1903.

#### CHAPTER 222.—*Protection of employees as members of labor organizations.*

SECTION 1. It shall be unlawful for any individual or member of any firm, or any agent, officer or employee of any company or corporation, to coerce, require, demand or influence any person or persons to enter into any agreement, either written or verbal, not to join or become or remain a member of any labor organization or association, as a condition of such person or persons securing employment, or continuing in the employment of such individual, firm, or corporation.

SEC. 2. Any individual or member of any firm or any agent, officer or employee of any company or corporation violating the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not less than fifty dollars or imprisoned in the county jail not less than thirty days.

Approved March 13, 1903.

#### CHAPTER 310.—*Inspection of factories, etc.—Fire escapes.*

SECTION 1. Every building now or hereafter used, in whole or in part, as a public building, \* \* \* shall, within six months after the passage of this act, be provided with one or more metallic ladders or stair fire escapes attached to the outer walls thereof, and extending from or suitably near the ground to the uppermost story thereof, with platforms of such forms and dimensions, and in such proximity to one or more windows of each story above the first as to render access to such ladders or stairs from each such story easy and safe; the number, location, material and construction of such escapes to be subject to the approval of the fire marshal, chief of the fire department, city or town marshal, or such other authority as may have the control of fire regulations in any city or town where such buildings are located: *Provided, however*, That all buildings more than two stories in height, used for manufacturing purposes, \* \* \* shall have at least one such fire escape for every thirty persons for which working, \* \* \* accommodations are provided above the second stories of said buildings; \* \* \*

Approved February 28, 1903.



CHAPTER 356.—*Inspection of factories, etc.—Fire escapes—Safety appliances.*

SECTION 1. Every person owning or operating any manufacturing establishment which may contain any elevator, hoisting shaft or wellhole shall cause the same to be properly and substantially enclosed or secured, in order to protect the lives or limbs of those employed in such establishment.

SEC. 2. Proper and substantial hand rails shall be provided in all stairways in manufacturing establishments. The stairs shall be properly secured at the sides and ends, and all doors leading into such establishments shall be so constructed as to open outwardly, and shall be neither locked, bolted nor fastened during working hours.

SEC. 3. In all manufacturing establishments three or more stories high, at least one fire escape, and as many more as may be reasonably necessary, shall be provided on the outside of said establishment, connecting with each floor above the first, well fastened and secured, and of sufficient strength. Each of said fire escapes shall have landings or balconies not less than six feet in length and three feet in width, guarded by iron railings not less than three feet in height, and embracing at least two windows at each story, and connecting with the interior by easily accessible and unobstructed openings, and the balconies or landings shall be connected by iron stairs not less than eighteen inches wide, the steps not to be less than six inches tread, placed at a proper slant, and protected by a well-secured hand rail on each side, with twelve-inch drop ladder from the lower platform reaching to the ground.

SEC. 4. Every person owning or operating any manufacturing establishment in which machinery is used shall furnish and supply for use therein belt shifters, or other safe mechanical contrivance, for the purpose of throwing on or off belts or pulleys; and wherever it is practicable machinery shall be operated with loose pulleys. All vats, pans, saws, planers, cog gearing, belting, shafting, set-screws and machinery of every description used in a manufacturing establishment shall, where practicable, be properly and safely guarded, for the purpose of preventing or avoiding the death of or injury to the persons employed or laboring in any such establishment; and it is hereby made the duty of all persons owning or operating manufacturing establishments to provide and keep the same furnished with safeguards as herein specified.

SEC. 5. If any person employed or laboring in any manufacturing establishment shall be killed or injured in any case wherein the absence of any of the safeguards or precautions required by the act shall directly contribute to such death or injury, the personal representatives of the person so killed, or the person himself, in case of injury only, may maintain an action against the person owning or operating such manufacturing establishment for the recovery of all proper damages. In cases where the action is brought by the personal representative of the deceased, said action shall be governed in all respects not herein provided for by the provisions of the statutes now in force which authorize and regulate the bringing of actions to recover damages in cases where the death of one is caused by the wrongful act or omission of another: *Provided*, Action shall be commenced in the county where the accident occurred.

SEC. 6. In all actions brought under and by virtue of the provisions of this act, it shall be sufficient for the plaintiff to prove in the first instance, in order to establish the liability of the defendant, that the death or injury complained of resulted in consequence of the failure of the person owning or operating the manufacturing establishment where such death or injury occurred to provide said establishment with safeguards as required by this act, or that the failure to provide such safeguard directly contributed to such death or injury.

SEC. 7. Manufacturing establishments, as those words are used in this act, shall mean and include all smelters, oil refineries, cement works, mills of every kind, machine and repair shops, and, in addition to the foregoing, any other kind or character of manufacturing establishment, of any nature or description whatsoever, wherein any natural products or other articles or materials of any kind, in a raw or unfinished or incomplete state or condition, are converted into a new or improved or different form.

SEC. 8. Wherever the expression occurs in this act in substantially the following words: "Every person owning or operating any manufacturing establishment," or where language similar to that is used, the word "person" in that connection shall be held and construed to mean any person or persons, partnership, corporation, receiver, trust, trustee, or any other person or combination of persons, either natural or artificial, by whatever name he or they may be called.

Approved March 11, 1903.



CHAPTER 359.—*Protection of employees as members of the national guard.*

SECTION 1. Sections \* \* \* 28 \* \* \* of chapter 255 of Session Laws of Kansas of 1901 [shall] be amended to read as follows: Section 28. \* \* \* It shall be a misdemeanor for any employer to refuse permission to any employee who is a member of the Kansas national guard to attend drill or annual muster, or perform active service, when so ordered by the commander-in-chief; and any employer who shall so refuse, or shall discharge an employee from his service or shall in any way punish an employee for being absent in the performance of military duty, when so ordered by competent authority, shall on conviction be punished by a fine of not less than five dollars nor more than fifty dollars for each offense.

Approved March 9, 1903.

CHAPTER 377.—*Examination and licensing of plumbers.*

SECTION 1. Any person now or hereafter engaging or working at the business of plumbing in cities of seven thousand population or more in this State, either as master plumber or employing plumber or as a journeyman plumber, shall first receive a certificate thereof in accordance with the provisions of this act.

SEC. 2. Any person desiring to engage in or work at the business of plumbing, either as a master plumber or employing plumber or as a journeyman plumber, in cities having a population of seven thousand or more and a system of water-supply or sewerage, shall make application to a board of examiners hereinafter provided for, and shall at such times and place as said board may designate be compelled to pass such examination as to his qualifications as said board may direct. Said examination may be made in whole or in part in writing and shall be of a practical and elementary character, but sufficiently strict to test the qualifications of the applicant.

SEC. 3. There shall be in every city of seven thousand inhabitants or more a board of examiners of plumbers consisting of three members, one of which shall be chairman of the board of health, who shall be ex officio chairman of said board of examiners; a second member, who shall be a master plumber; and a third member, who shall be a journeyman plumber. Said second and third members shall be appointed by the mayor and approved by the council of said city within three months after the passage of this act, for the term of one year from the 1st day of May in the year of appointment, thereafter annually before the 1st day of May, and shall be paid from the treasury of said city the same as other officers, in such sum as the authorities may designate.

SEC. 4. Said board of examiners shall, as soon as may be after their appointment, meet, and shall then designate the times and places for examination of all applicants desiring to engage in or work at the business of plumbing within their respective jurisdiction. Said board shall examine said applicants as to the practical knowledge of plumbing, house drainage, and plumbing ventilation, and, if satisfied of the competency of such applicants, shall thereupon issue a certificate to such applicant authorizing him to engage in or work at the business of plumbing, either as master plumber or employing plumber or as a journeyman plumber. The fee for a certificate for a master plumber or employing plumber shall be five dollars; for a journeyman plumber, it shall be two dollars. Said certificate shall be valid and have force throughout the State, and all fees received for said certificates shall be paid into the treasury of the city where such certificates are issued.

SEC. 6. All persons who are required by this act to take examinations and procure a certificate as required by this act shall apply to the board in the city where they reside, or to the board nearest their place of residence.

SEC. 7. Any person violating any provision of this act shall be deemed guilty of a misdemeanor, and be subject to a fine of not less than five dollars nor exceeding fifty dollars for each and every violation thereof.

Approved March 9, 1903.

CHAPTER 393.—*Liability of employers for injury to employees—Railroad companies.*

SECTION 1. Section 1 chapter 93 of the Laws of 1874, entitled "An act to define the liability of railroad companies in certain cases," \* \* \* is hereby amended so as to read as follows: Every railroad company organized or doing business in this State shall be liable for all damages done to any employee of said company in consequence of any negligence of its agents, or by any mismanagement of its engineers or other employees, to any person sustaining such damage: *Provided*, That notice in writing of the injury so sustained, stating the time and place thereof, shall have been given by or on behalf of the person injured to such railroad company within ninety days after the occurrence of the accident.

Approved March 4, 1903.



## MICHIGAN.

## ACTS OF 1903.

ACT No. 87.—*Inspection of factories.*

SECTION 1. Whenever fire escapes, elevator protection or repairs, water-closets and other permanent improvements to buildings are ordered by factory or deputy factory inspectors under the provisions of act one hundred thirteen, session laws of nineteen hundred one, said improvements shall be made by the owner of the building or premises where such improvements are ordered: *Provided*, That nothing in this section shall be construed to interfere with any contract between owner and tenant whereby the tenant agrees to make such improvements when ordered by factory or deputy factory inspectors.

SEC. 2. Whenever the owner of any building or premises, as mentioned in section one of this act, is a nonresident of this State, the tenant shall make such improvements and may deduct the cost thereof from the amount of rent for use of said premises.

Approved May 7, 1903.

ACT No. 106.—*Employment of labor—Contracts involving removal from home locality.*

SECTION 1. Any person, company or corporation, or any agent or officer thereof who shall induce another person, by promise of wages or other valuable consideration, to agree to work for the person, company or corporation in whose behalf the offer of inducements is made, at a point away from his or her home locality, shall specify in writing the terms and conditions under which the said work is to be performed, the rate of wages and how, when and where said wages are agreed to be paid, and may furnish a copy of such statement of agreement to the person so induced by the promises therein to agree to work for the person, company or corporation offering said inducements: *Provided*, That it shall be unlawful for any person to make a tender of inducement to go away from the home locality to work, to any child under sixteen years of age unless the written consent of the parents of such child has been first obtained, as well as the consent of the truant officer or county agent of the board of corrections and charities for the locality where said child belongs; and in case such consent is obtained and the child goes abroad under the influence of the inducements so offered, such child under sixteen years of age shall be safely returned to its home at any time when its parents shall request, in writing, such return. Any person or any agent or officer of any corporation who shall, in offering inducements to any person to work for hire at any place apart from his or her home locality, misrepresent any of the conditions of such employment as mentioned above, shall be liable to pay to the person injured by such misrepresentation, the full amount of the damage sustained and shall be further liable to the penalties provided in section three of this act.

SEC. 2. Every person, who, with intent to defraud, shall accept or receive transportation provided by or at the instance or expense of his employer, from any point in this State to or in the direction of the place where he has contracted to perform labor for, or render services to such employer, or who shall knowingly, and with intent to defraud, accept or receive the benefit of any other pecuniary advancements made by or at the instance and cost of his employer, under an agreement on the part of such person to perform labor or render services in repayment of the cost of such transportation or of such other benefits, shall be deemed and adjudged guilty of a misdemeanor if he shall neglect or refuse to render services or perform labor of an equal value to the full amount paid for such transportation or other benefits, or shall neglect or refuse to pay such employer in money the amount paid therefor. The value of the services to be rendered, or labor to be performed shall be determined by the price agreed to be paid therefor by such employer under his contract with the employee. The failure or refusal of any such employee to perform such labor or to render such services in accordance with his contract, or to pay in money the amount paid for such transportation or other benefits, shall be prima facie evidence of his intent to defraud.

SEC. 3. Every person found guilty of violating the provisions of this act shall be punished by a fine not exceeding twenty-five dollars or by imprisonment of not less than ten nor more than sixty days.

Approved May 14, 1903.